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ARTICLE XX.

THE ACTION OF ALCOHOL UPON THE HUMAN SYSTEM.

By R. L. WALSTON, M.D., Paris, Ill.

Read before the Esculapian Society.

A few weeks ago, I observed that the National Medical Association made the announcement that, for three successive years, committees had been appointed to make a report upon the action of alcohol upon the human system, but that no report had ever been offered—that each appointment had proved a failure. In all our medical literature, there is a complete dearth upon the subject; there is but one monograph in our language that has even a *bearing* upon this topic. It is for these reasons that I now bring my feeble offering and lay it as a willing sacrifice upon the altar of our profession; not that I entertained for a moment the vain aspiration that I should be able to supply the desideratum, but that I might incite others to do so. It is a subject surrounded by difficulties of which I at first had no conception, and to have prepared a labored, elaborate address upon this subject would have required much thought, great research, and some sparklings of genius. Time for thought I have not had, research I have never made, and to genius I lay no claims. But should I succeed in throwing a

single ray of light across your path, or inspiring a single emotion within your bosoms, to impel you forward in the investigation of this subject, my object is gained.

By alcohol, is meant the intoxicating principle of all spirituous or fermented liquors. It is an unnatural product, not found free in nature, but is always prepared at the cost of the destruction or decomposition of other substances. It has had an existence almost ever since the world was. We are informed in the *Book* that, away down in the dim twilight of the world's history, one Noah was *drunken with wine*, and, true to the instincts of such condition, he steeped his ingrate soul in that most unnatural crime. You may sweep back through channels of history into the dark aisles of tradition until superstition and ignorance become an impenetrable veil, illumined only by a few flashings from the Jewish theocracy or gleams from the Trojan fable, and you will find that this mysterious spirit has ever dwelt among the destinies of mankind, at one time sitting, like the hellish imps of discord, gibbering upon the hearthstone, and at another, like the angel of mercy, at the bed of the dying. From its multiple phases, moralists have been wont to represent it as Proteus, or the Old Man of the Sea; but if such figure be admissible, it is dependent upon the shape he assumes, whether he is the Goddess Hygea or the Juggernaut of destruction.

The history of nations gives evidence in behalf of these statements. Greece rolled the car of ambition to the very acme of anticipated greatness and glory, and beheld, with complacent smile, her mighty achievements and unequaled strength; but when she pressed to her lips the intoxicating goblet, her brain ran wild, and she, like an avalanche loosed from some Alpine peak, plunged into the yawning chasm below. Her glory has departed, and, from her mournful ruins, from her desolated rubbish, there comes forth a voice so potent as not to be mistaken. Alexander, the world conqueror, surrendered to the wine-cup, and died as the fool dieth; his generals divided the known world between them and deluged it with blood. War is the great work, or rather the sport and triumph of death—the terrible generalissimo of evil, and his aide-de-camp is wine. But

never, in the world's history, did intemperance reach its climax of sin and violence, of shameless crime and misery, never did it spread over the earth so like an epidemic, until our new, fair, fresh continent yielded the product of its rustling cornfields to the distillery. The vigorous and virgin soil yielded profuse harvests of grain, and the enterprising Yankee manufactured that bounty, which heaven had given for food for man and beast, into alcohol. And thus we had a surfeit of this precious remedy, and hence its shameful and unfortunate abuses. We may imagine the wealthy old Dutchman, sitting under his ample porch, from which the sun's rays were all excluded by his teeming fruit trees, gazing out over his luxuriant fields of wheat, of rye, of corn, and of clover; his cattle slumber in his rich pastures, and his sheep whiten the hillsides. He soliloquizes:—"Oh, that I could find a market for my rural wealth! My barns are already filled, what shall become of my abundant stores?" His satanic majesty is always accommodating to the rich, and he inspires a foreign schoolmaster to come to his aid; and thus the devil and the Scotchman made the wine-presses to run and gush like rills and fountains with this poisonous beverage, which heaven had appointed as a blessed remedy to quicken the sluggish pulse, sustain the failing nerves, and un wrinkle the gathering brow of care.

It is a well known but mysterious fact, that certain agents, when taken into the system, have, first, an elective, local action—that they manifest an affinity, a special preference in favor of some organ or parts of an organ; for example, subnitrate bismuth acts directly and locally on the extremities of the sentient nerves of the stomach, veratrum on the heart, and belladonna manifests its preference in favor of the pupil of the eye, and alcohol is plainly shown to have an elective affinity in favor of the brain and nervous system. Why and wherefore this mysterious action, none may know. It is as mysterious as language, and all attempts to explain it is like the teachings of calculus, that zero above zero is the origin of quantity; it but makes darkness visible, and belongs, properly, to the ken of a future state.

The physical change wrought in a simple piece of animal tissue by the direct action of alcohol is that of corrugation, which change is due to the difference in the affinity which the tissues have for alcohol and water. The change takes place by endosmosis and exosmosis, the water passing out and the alcohol passing in in about two-thirds the quantity of water before contained; hence the corrugation or shrinking. The reason that the tissue absorbs less alcohol than it, in its normal state, contained water, is due to the coagulation of its albumen. This physical change makes an important alteration in the chemical relation of the different elements of the tissues, and since a certain definite proportion must exist between the constituents before nutrition can possibly take place, you see at once how alcohol in the tissues of the animal body must derange all the nutritive functions. The change in the albumen does not take place in the *vitalized* tissues only in the most extraordinary alcoholic potations; but that such changes do take place, in rare instances, none can doubt. No considerable physical change can take place without seriously deranging the vital function of the changed organ or organs. Thus it is, that dogs are killed by the injection of the smallest amount of alcohol into the veins by the clotting of the albumen. Albumen is not, in its own state, organizable, but is changed to fibrine and then to organized tissue, and anything that destroys or prevents the change of albumen to fibrine necessarily intercepts nutrition and cuts off all repair of tissue, and causes starvation and death of *nerve-tissue*, for we shall show, by-and-by, that these phenomena are manifest in the nervous system, as is distinctly seen in the web of a frog's foot, by the microscope, when the frog is intoxicated, by which we learn that alcohol, in a very dilute state, exalts, for a time, vital action, but is soon followed by a corresponding vital depression, from which the system is long in rallying, so that there is much less vital force generated in a given time with than without alcohol.

Some suppose that alcohol, in small and frequent doses, is a tonic; but of this we have no proof. The property of tonic remedies, is to increase the vital contractility of muscular tis-

sues, but especially of the bloodvessels, and in this we have, at all times, a relaxation of the muscular coat of the bloodvessels and a dilated state of the vessel. If a piece of nerve-tissue be subjected to the action of galvanism till it loses its excitability, and then is dropped for a moment into strong alcohol, the alcohol seems to arouse the expiring vital forces, and it is again excitable by the galvanism; but if first acted upon by the alcohol till it refuses, it then falls into a state of hopeless depression, from which no galvanism can ever arouse it. Small earth-worms and puppies are as surely killed by being intoxicated as if the brain was parboiled in an alkali. The membranes of the nervous centres are so tender as to allow the escape of alcohol through them, and the albumen of the brain is thereby coagulated and we have death as a certain result. Alcohol has one peculiar effect upon the blood, which I wish here to mention, as explanatory of something yet to come. When alcohol is taken continuously, it not only coagulates, to some extent, the albumen, as before shown, but it so contracts the red globules as to lessen their capacity for containing the hematine, or coloring matter of the blood, and it is squeezed out into the liquor sanguinis, where it retains the carbonic acid and rejects the oxygen presented to it at the lungs, and hence we have that dusky, dark-blue, cyanotic condition of habitual drunkards.

Intoxication is manifestly, as the etymology of the term designates, a condition of poisoning, and may, for convenience, be divided into three stages. The first is characterized by an increased activity of the heart's action; full, rapid pulse; flushed face and heated surface; with a general exaltation of all the organic functions; but it is most obvious that the encephalic centres are in a state of exalted function, evinced by the loquacity, rapidity and variety of thought, exhilaration and hilarity, and animated countenance and gestures. It is in this state that the old adage, *in vino veritas*, is so clearly manifest in the prevailing inclinations and proclivities being made known. "The irritable and ill-tempered become quarrelsome, the weak and silly are boisterous with laughter and mirth;" they fancy

themselves insulted, take fire within, rave, threaten, and then come to blows. Seneca spoke of them, as those who let in a thief at the mouth to steal away the brains—for the right hand is lifted against the dearest friend, perhaps the wife of his bosom, and in one rash hour performs a deed that haunts him to the grave. This stage is nearly allied to incipient phrenitis, or mania. This exaltation is not a sustained exaltation of nervous forces, but a perversion of them. If the stimulus be now pushed any farther, the second stage is ushered in, where delirium begins and all control over the thoughts is lost, and the man becomes confused and a little muddy, intellectually, (and sometimes physically,) with disordered reasoning powers and the victim of hallucinations, of vertigo, and double visions. Vomiting occurs here, from a poisonous condition of the brain-substance, and this is nature's effort to relieve herself; but *similia similibus curantur* gives him a little more alcohol. The third stage is a total cessation of sensorial power and action, a profound coma, and this may be of every degree, from the sound, deep sleep of nature, from which the patient may be aroused to partial consciousness, to that deep, stertorous breathing; sound, apoplectic coma; tetanic convulsions, and death. When a fatal case occurs, it is plainly one of apoplexy, or a breaking down of cerebral power by effusions; the countenance wears a disgusting, bloated, tumid, livid appearance; the eyes protruding, open, vacant, and staring; and the lips blue and everted; though, in some instances of alcoholic poisoning, it would seem that it was a result of the action of the poison on the nerves of the stomach, particularly those of the sympathetic system, thereby stopping the heart's action, the patient dying of syncope rather than asphyxia. This is a state of *depression*, not *oppression*, as in apoplexy, and, in this condition, he who *bleeds his patient kills him*. Alcohol, as already shown, has an elective affinity in favor of the brain and nervous system, as other articles have a preference in favor of other organs or parts of organs. Its preference is first in favor of the cerebrum, the seat of intellect and reason. This is clearly evinced in the first stages of intoxication—quickened mental action,

rapidity of thought, volubility of speech, and, temporarily, an increased mental power. It selects the cerebrum, as strychnia does the spinal cord; but push it to the second stage, and it reaches, by sympathy, the sensory ganglia upon which the cerebrum is superposed; and in the third stage, the medulla oblongata is involved, as evinced by the stertorous breathing, full, slow pulse, and a general sluggish movement of all the vital organs.

The skin, the kidneys, and the lungs are now taxed to their utmost endurance, to eliminate this poison from the system; but, unfortunately, they succeed but partially, for the reason that the glands, the real scavengers of the system, refuse to take it up, unless it is the kidneys partially, and that is a disputed question; and small quantities of alcohol have been so intimately incorporated into the nerve-tissues as to pass out only by a change of nutrition. But alcohol being a ready combustible, attacks the oxygen from the blood and other tissues, and is thereby changed by combustion into carbonic acid and water, to which combustion the system is mainly due for its increased heat.

I shall now pass to notice, briefly, some of the diseases of the brain and mind, induced by the *abuses* of alcohol, for it is the cause of more such diseases than all other causes combined. The delirium ebriosum of DARUM I shall not notice, it being only an exaggeration of one of the ordinary forms of excitement in common intoxication, and will generally pass away in a day or two, if the wildness and ferocity of the patient be restrained by anodynes and gentleness. But there is a condition intervening upon a continued state of over-excitement of the nervous system, known by us all as delirium tremens, which is so named from the tremulousness and tremor of the muscles, which is always the result of exhaustion—the exhaustion of nervous fever. But delirium tremens may originate in two ways:—It may originate from a continued application of the stimulant till the battery of nervous power is exhausted and ceases to respond to the stimulant; or it may originate from a sudden withdrawal of the stimulant when the supply of nervous

force is so nearly exhausted as to be unable to act without its wonted stimulant, and it is in the latter condition only when you may relieve the patient by goading the brain a little further, by giving him a little more whisky. But the cure is, to put the brain in splints, and keep it at perfect rest, till it can recuperate and generate natural forces enough to run this little piece of divine mechanism. This failure of nervous force is plainly manifest in every case of delirium tremens. There is little or no heat of the head or flushing of the face; the surface is cool and humid, and even chilly and cadaverous; the pulse is small, frequent, and weak; the temper is not violent, but there is anxiety and general apprehension of evil. Most physicians have had patients attempt descriptions of this condition. One, I well remember, which was a vivid picture of a fiendish group of phantastic horrors and chilling agonies, which no pen could describe, even were it guided by the hand of a Dante. If some terrible monster enters your chamber at an unseasonable hour and threatens you, if you hear its footsteps and feel its hot breath, you arm yourself and go into the conflict, and every stroke does you good; but if you approach and strike it, and your good broadsword goes down through it as through a wreath of smoke, or it evades your grasp like a flake of down, or, like Milton's angels in the battle of Heaven, which, though a thousand times cloven, is still uncleft, you recoil from such an unequal conflict and yield yourself to such a deathless conqueror. And such being the nature of this dreadful affection, we have no difficulty in understanding how the habitual use of alcoholic liquors becomes one of the most frequent causes of insanity or settled derangements of the mind. It acts, as the statistics of lunatic asylums all go to show, both as a predisposing and exciting cause, in a greater number of cases than all other causes combined. And this is due more to the production of a disordered state of the nutrition of the brain and nervous system, than in any other way. I might here go on and give the statistics culled from reports of the various asylums in the United States and Great Britain, but time will not permit. But by the law of hereditary tendency, or the trans-

mission of condition, tendencies and appetites, it is remarkably manifest in the offspring of drunkards. Thus Plutarch says:—"one drunkard begets another;" and Aristotle says, that "drunken women bring forth children like unto themselves." Diogenes said to a stripling, somewhat crack-brained and half-witted:—"surely, young man, thy father begot thee when he was drunk." Shakespeare seemed to recognize the law of hereditary transmission of qualities so much insisted upon in the text:—"Come on ye cowards; ye were got in fear, though you were born in Rome." It is a matter of history, worthy our notice, that the child of an habitual drunkard was never known to attain to greatness.

That there is a certain condition of exhaustion of nervous forces, a starved condition of the nutritive power of the brain, which, when transmitted, results in idiocy and imbecility, is settled beyond a doubt, and is accounted for upon principles much better known to science than the law of congenital nevus, or the marks produced upon children in utero, by impressions made upon the mind of the gestating mother. Dr. HOWE, in his report to the legislature of Massachusetts, makes the following characteristic remarks:—"The parents of 300 of the idiots were ascertained, and 145 were reported as known to be drunkards. Such parents give a weak and lax mental constitution to their offspring, who are deficient in vital energy, and predisposed, by their very organization, to cravings for stimulants." This is my argument exactly, that having a low vital energy, a deficiency in real brain force, they have a natural thirst for intoxicating liquors, a longing for something to goad up the brain till it will yield the amount requisite for the daily demand.

If, now, we turn our attention to the inflammatory condition of the brain and its membranes, I presume every physician has a wide and melancholy field of illustration. Inflammation of the brain and its membranes is a usual concomitant of a protracted debauch; or, if the unfortunate recovers short of actual inflammation, he is like to suffer from a protracted state of passive congestion of the brain substance, producing that weight and heaviness of which we so often hear complained. But time

does not permit me to dwell longer, and I must hasten on to touch upon a few prominent points in the diseases of the alimentary canal, produced by the too free and frequent imbibition of alcohol.

The effect of alcohol upon the healthy tissues of the stomach are more plainly manifest in the specimen I here show you, than I could illustrate in a whole evening's lecture. Here is the stomach of a drunkard, otherwise a healthy man. I took it from his body with my own hands. It is true, he suffered with all that train of diseases which accompanies such a life, but it was, emphatically, whisky and obesity of which he died and went to hades. The mucous coat is a perfect mesh of bloodvessels; it is thickened and indurated; the mucous coat is raised up, as it were, to protect the extremities of the gastric nerves from alcohol; there are ulcers and little abscesses filled with a hard granular pus, which has burrowed between the different coats, almost dissecting them from their normal adherence to each other. Such is the havoc made in the stomach by alcohol; and the effect upon the duodenum and other bowels is like unto this. But it is useless for me to continue to enumerate the different diseases of specific organs of the body, it will suffice to say, that it produces amyloid degeneration of the liver, cirrhosis, hydro-peritoneum, fatty liver, epilepsy, muscular tremors, gastritis, pyrosis, various dyspepsias, and the lesions of the kidneys known as "Bright's disease," and last, but not least, alcoholism *favors the production* of nearly all other diseases, by lessening the power of resisting their causes, and contributes to their fatality by impairing the ability to tolerate and overcome them.

Drunkards readily succumb to inflammatory diseases of every variety. Surgeons are always desirous of getting union by first intention, which union they never get in habitual drunkards, on account of the impaired plasticity of the blood. But some are, doubtless, ready to ask the question:—Has alcohol no virtues as a remedial agent? I answer, yes, it is indeed a savor of life unto life; but it is then a benign agent, as a poison, as a medicine, and all medicines are poisons. There are a thou-

sand instances and conditions wherein this powerful arterial stimulant may be used in restoring the injured or wounded from severe shocks, or sustaining the failing life force, or fanning the expiring flame of life into an increased fervency and brilliancy. In chronic diseases, in low fevers, and in extensive superficial burns where, by the direct action of fire, the temperature falls to a degree below the point consistent with vitality, a little stimulant may be administered with magic results in sustaining the heart's action and nerve forces till reaction is manifest. But such administration should always be under the direction of an intelligent physician.

There formerly existed some doubts whether the human system could not keep up a sustained effort of its physical and intellectual powers by the aid of alcoholic stimulants longer with than without them, whether or not it did not increase the aggregate of man's endurance. But however many doubts might have lingered in the public mind formerly, it seems that the history of the last five years would have dispelled them all. Our soldiers were not goaded on to victory by any such degrading impulses. They underwent exposures and privations, endured hardships and fatigues, made wearisome marches beneath the burning rays of a tropical sun, exposed to the diseases of a high latitude, all without a murmur. They faced enemies, fought battles, and achieved victories, the like of which the world has never known—they carried bibles, not bottles—a sound conviction of a noble duty was their only stimulant. But does not alcohol increase man's endurance in a continued mental effort? With most persons it produces a temporary exaltation of mental activity, lighting up the scintillations of genius into a more brilliant flame, or assisting the prolongation of a *single* mental effort when the powers would otherwise be exhausted; but it must be remembered that it is not in any brilliant coruscations or unnatural irradiations of wit or humor in which the merit lies, but it is in the continued fervor of the glow which drops the rays of light into the dark corners of the world's great heart, lighting it up with the lamps of wisdom, and sowing seeds which bring forth the golden

harvest. If spirits would make poets and orators, the world would be full of them. The lights of genius may be untimely burnt out and forever extinguished, as in the case of Mozart, and Haller, and Byron, and Poe. These men gave manifestations of music and poesy in spite of, and not on account of, alcohol. Call Homer from the dead, interrogate that blind old bard of Scio's rocky aisle, as he rolled his quenched eyeballs to find a ray of light, and ask him if that mellifluous epic which he warbled through the listening cities of his native seas, was the fruit of alcoholic potations; and then Milton, a second Homer, but a greater than the first, was it alcohol or celestial lights which shone inward and raised up things invisible to mortal sight. Do the works of Locke and Bacon bear the impress of a heated brain? Are they volcanic productions? No sir, the *Novum Organum* and the *Essay on the Understanding*, give evidence of minds purified by a refiner's fire.

The brain is the organ of the mind, and whatever interrupts the nutritive functions of that organ or changes its sensitive, delicate textures, prevents the mind's ready response to moral ideas and lessens the power and correctness of all intellectual operations. Thought is the true standard of intellectual excellence. 'Tis thought that has said to the wilds of America, blossom, and almost instantly it has become as the garden of Eden. It says to the mountains, be ye opened, and instantly its bowels of rock are blasted out. 'Tis thought that outstrips the wing of lightning, and speaks like the voice of God. It defies volcanoes and storms, and laughs and makes out warrants and executions in its burning path; it tameth the tiger, and maketh a plaything of the lion. 'Tis this, of all things, which most challenges our admiration. We look at the idiot, or even the temporarily insane, and feel that it is a terrible thing to have the reason extinguished, or that some crushing power should rest upon the intellect, paralyzing it. It would be no compensation for us to know that our children would grow up with all the beauty of an Antinous or the giant proportions of an Apollo, did we not expect intelligence to accompany their maturity. Even the club-footed and deformed are loved and

courted, if but this God-like quality is left them—the power to think.

I, for one, believe in an aristocracy, social castes, and an hereditary nobility. But these distinctions should not be erected upon the crumbling basis of wealth. It should be an aristocracy of intellect, a caste of thought, a nobility of mind, and it is plainly the duty of physicians, as champions of moral ideas and devotees of science, to enlighten the people upon the action of every agent which tends to corrupt the fountains of virtue in themselves, or to fetter and trammel the intellect of their offspring. And we have but to cast around us, to see that alcohol, more than all other influences, tends to corrupt and pollute the purest avenues of society, rendering those minds vulgar and plebeian which otherwise would be dignified and noble. "This most excellent canopy, the air, this brave, o'er-hanging firmament, this majestic roof fretted with olden fire! What a piece of work is man: how noble in reason; how infinite in faculties—in form and moving, how express and admirable; in action, how like an angel; in apprehension, how like a god; the beauty of the world, the paragon of animals." We delve deep in the mysterious organic structure, but the glittering scalpel throws back the reflection, "there is a God, who made all this." But the correction of moral evils belongs not to science; and leaving the subjects of death—the *grim ferryman*—and man's accountability to God to the man of ethics, I shall offer but a single reflection more.

I desire not to take the *role* of Mentor, nor wear the Nessus' shirt of self-conceit; but I would be understood. What are we to do? We cannot ignore the use of this valuable agent of the text; in such attempt we but fly from Scylla to be wrecked on Charybdis. But guided by the light-house of science, and steering our bark in the middle of the channel of truth, we may use it with caution, at all times exercising a wise discretion as to when and how it shall be administered, if not, we will increase human sufferings, while our mission is to ameliorate them. The physician goes by the ditches and gutters of pollution, but not like the arrogant priest and haughty Levite, who

did not so "much as look that way," or walked on the other side, but like the good Samaritan, he may lift mankind from the trenches of vice as well as the touch of pain and disease. He knows their foibles and failings, and if he is a *physician* and treats the whole man, he addresses his remedies to the failing part, be that attribute or organ. But alcohol has an action directly upon our profession, one of which I have not spoken. There is an aspersion which comes against us from the great heart of the people, which is more loathsome than the sores of Lazarus, or the leprosy of Naaman—one which can neither be hid in "Abraham's bosom," nor purged away in the pool of Siloam—it is this, that the profession, as a profession, is under the ban of intemperance; that the footsteps of the drunkard are wont to be heard in the chambers of woe. Ah! be it said, to our everlasting shame, that the pestiferous breath of alcoholic potations is exhaled around the bed of the dying. Will we not, as a profession, arise and shake this stain from our garments, as the lion shaketh the poisonous vapors from his mane, and hurl back the foul aspersion into the faces of those who make it. Let us be willing to labor for the advancement of the profession—retarded by individuals, it may be, but disgraced it shall never be.

ARTICLE XXI.

REPORT ON INDIGENOUS BOTANY.

BY — MASSEY, M. D.

Read before the Esculapian Society, October, 1866.

MR. PRESIDENT AND FELLOWS OF THE ESCULAPIAN SOCIETY:

Gentlemen,—As chairman of your committee on Indigenous Botany, I feel it my duty to present a report—a task however which I feel myself utterly incompetent to perform under the most favorable circumstances. And when I remind you of the very elaborate and interesting report of my highly esteemed

friend Dr. Miller on this subject, at the last meeting of this society, I cannot fail to excite your deepest sympathies and commiseration on my behalf.

It will not therefore, be my aim to take a very extensive survey of this field of enquiry, but I shall confine my remarks to but a few species of a single genus of the flora of our beautiful country.

The first to which I shall call your attention is the *Asclepias Cornuti*.

Asclepias is from the Greek of Esculapius, fabulous god of medicine and physicians. It belongs to the natural order of *Asclepiadaceæ*, and all of its species as far as I know, to *Pentandria Digynia* of the artificial system of Linnæus.

The distinguishing characteristics of this genus are that the leaflets are cucullate or hooded, with an averted horn-like process at the base, curved toward the stigma.

Six species I know from observation, to be indigenous to this State and County, namely, *A. Cornuti*, *A. Tuberosa*, *A. Incarnata*, *A. Purpurascens*, *A. Obtusifolia*, and *A. Sullivantii*. The first three of which are ranked in the secondary list of medicinal substances in the U. S. Dispensatory.

The species under consideration is the *A. Syriaca* of the U. S. Dispensary, or common silk-weed, a very common, coarse, lactescent perennial plant, growing along lanes and hedges, preferring a rich sandy soil.

The stem is simple, stout, from three to five feet high; leaves oblong-ovate, short-petiolate, mucronate, downy beneath, pedicels shorter than the leaves, densely many-flowered; hoods of crown ovate obtuse, not longer than the uncinatè horn; corolla lobes ovate, reflexed; leaves five to eight inches long, by two to three inches wide; veinlets at nearly right angles with mid-vein; peduncles stout, between petioles, bearing a globular umbel of about a hundred greenish purple flowers, few of which prove fruitful; folicles sprinkled with soft warty spines, full of seeds with their long pappus or silk.

It flowers in July and August. The stem and leaves give out a milky juice when wounded; hence one of its names, milk-weed.

This juice has a sub-acrid taste and an acid reaction. Dr. C. List found the chief solid ingredient of the juice to be a peculiar crystalline substance of a resinous character, closely allied to lactucone, and which he proposes to call *asclepione*.

The juice is coagulated by heat, filtered, then digested with ether, which dissolves the *asclepione* and yields it by evaporation.

Dr. Shultz found 80 parts of the juice to contain 69 of water, 3.5 of a wax-like fatty matter, 5 of caoutchouc, and 0.5 of gum, 1 of sugar with salts and acetic acid, and 1 of other salts.

It is highly probable that the *asclepione* of Dr. List is the aggregate of the fatty and gummy matter of the juice soluble in ether, as nine parts out of eleven were shown to be of this character by Schultz.

These analyses throw little or no light on the medicinal properties of the juice, if indeed it is possessed of any.

The root however is the medicinal part, the juice of which is not milky. Dr. Richardson of Mass. found the root to possess anodyne properties. He gave it with advantage to an asthmatic patient, and in a case of typhus fever attended with catarrh. In both instances it appeared to promote expectoration, to relieve pain, cough and dyspnoea.

He gave a drachm of the powdered bark of the root in divided doses during the day, and employed it also in strong infusion.

Dr. Thomas, of Rocky Springs, Miss., stated in a letter to one of the authors of the U. S. Dispensatory, that he had employed the root in Scrofula with great success, and in Dyspepsia with advantage. He found it cathartic and alterative, but observed no anodyne property. He was induced to try it, having noticed that it was much used by the planters in scrofula and other diseases; and by the recommendation of Dr. McLean of Kentucky, who had employed it for twenty years in scrofula with most satisfactory results.

Dr. McLean also speaks very highly of it as an alterative in hepatic affections. He is however of opinion that it might be possible that he was using a different species from that described in the U. S. Dispensatory.

The doubt expressed by Dr. McLean, as to the species used by him might, at first, seem to invalidate his testimony in regard to the virtues of this species of *asclepias*; but when we remark the different appearance of different specimens, grown in different soils—and at the same time the impossibility of confounding it with any other known species—we are inclined to the opinion that Dr. McLean was confused by the first of the above facts, and that he was using the *asclepias cornuti*.

Dr. R. S. CANTHORN, of Richmond, Va., used it successfully in several cases of intermittent fever; and it is considered by him a valuable anti-periodic; he gave from four to six grains of the powdered bark, in form of pill, every two or three hours, augmenting the quantity to three times that dose, two or three times before the paroxysm.

I cannot speak as to its virtues as an anti-periodic, never having used it to fulfill such an indication; but as an alterative in scrofula, and as a gentle tonic in dyspepsia, I believe it to be a valuable remedy, and worthy of the attention of the profession.

I think it may reasonably be expected to do good in cachectic diseases, generally attended with torpor of the bowels, which it has a tendency to regulate; this, I believe it effects, in part at least, by giving tone to and stimulating the muscular coat, and in part by exciting a flow of bile, and other secretions, into the alimentary canal.

I have used it in strong decoctions; half ounce of the dried root to one pint of water—to be taken during the course of the day, and continued for a considerable period of time, unless it acts too much upon the bowels, in which case the dose should be reduced.

I next call your attention to *asclepias tuberosa*; this is the butterfly weed, or pleurisy root; it differs from all other species of *asclepias*, in not possessing a milky juice.

The stem is ascending, hairy, with spreading branches at the top; leaves alternate, oblong-lanceolate, often sessile, umbels numerous, forming a large terminal corymb; hoods bright orange, oblong, narrow, with slender sub-falcate, sub-erect horns.

It inhabits dry fields and meadows in the Middle, Western, and Southern States.

The root is large, fleshy, tuberous, sending up numerous stems two feet high and very leafy; leaf at top only, quite sessile, acute; obtuse at base, two to four inches long, by half to one inch wide; petals and crown of equal length; follicles bracteate-pointed, containing long, silky down; it flowers in August.

There is a variety, growing mostly in the Southern States, the stem of which is decumbent, which has been raised to the rank of a species, by some botanists, under the name of *A. Decumbens*; the root is the medicinal part, which was brought into popular use by the Indians, who used it in a variety of diseases.

SHOEFF first brought it to the notice of the profession.

It is ranked, by Prof. DUNGLISON, as a stimulating diaphoretic. He, however, has but little to say about it, and appears to know less; as it certainly neither increases the heat of the surface nor accelerates the pulse.

I think that no one, who has any experience with it, will deny its powerful diaphoretic properties. It appears to act directly on the sudorific porous glandula of the skin; having no direct sedative action on the heart or vascular system; neither does it act by inducing nausea; for, although it is slightly nauseant in the recent state, it acts as certainly and as powerfully when dried.

It acts also as a cathartic, when given largely, especially in the recent state.

Dr. GRIFFITH says that it is a valuable remedy in a variety of diseases, especially of the respiratory organs, and that there is ample testimony of its beneficial effects, if properly administered, in this class of cases.

Dr. CHAPMAN states that it is very certain and permanent in its action, and is well suited to excite diaphoresis in the forming stages of inflammatory diseases.

It has been used with success in acute rheumatism; nor is it empirically prescribed in this painful disease; as our present knowledge of its pathology points plainly to the use of blood

depurants and elimenatives; and when we take into account the fact, that the sudden suppression of the cutaneous transpiration is a most fruitful cause of this disease, we can easily comprehend how active diaphoretics are likely to prove peculiarly useful.

Dr. LOCKWOOD states that when used in strong decoction or infusion, in the proportion of one ounce to a quart of water, (a tea-cup full of which should be taken warm every three or four hours,) it acts with as much certainty as a diaphoretic, as jalap does as a cathartic.

It is also recommended, by Dr. EBERLE PARKER and others, in acute dysentery; and in cases where the skin is hot and dry, I believe it to be highly useful, in virtue of its diaphoretic properties; but I am inclined to the belief that it acts beneficially in this disease, independently of its sudorific properties—by, in some unknown way, modifying the action of the mucous membrane of the alimentary canal, as I believe it also does of the mucous lining of the bronché.

It is popularly esteemed in flatulent colic; hence one of its names, wind root; and I think there can be no doubt that it is gently tonic to the muscular coat of the stomach and bowels.

I prescribed it in one case of typhoid fever in which the skin was hot and dry and considerable tympanitic distention of the bowels; the patient could not take oil of turpentine in any way, on account of idiosyncrasy: a pint of the decoction, as prepared above, was given *ad libitum* through the course of the day, and I was highly pleased with its effects; its use was followed by relaxation of the skin, a subsidence of the tympanites, and a general amelioration of all the symptoms. Of course other adjuvants were used, but I attributed the subsidence of the tympanites, and the diaphoresis to the asclepias.

I would not be understood, however, to recommend it as a substitute for the oil of turpentine; especially where the alterative effects of the latter medicine on the ulcerated patches of the small intestines is desired; but cases may occur in which the oil cannot be administered, as that just narrated; under such circumstances, I would recommend the use of the remedy under

consideration. Nor do I believe it to be entirely without alterative effects on the mucous membranes, as I have already hinted.

Dr. LOCKWOOD speaks very highly of its use in promoting the eruption in the exanthematous fevers; that it is useful in promoting the eruption in measles, I can testify from observation; it is also useful in this disease on account of the pectoral symptoms that not unfrequently attend it.

Indeed, it is in diseases of the respiratory organs that it has enjoyed the highest reputation, as one of its names would indicate—pleurisy root.

Dr. L. K. WILLIAMS, of Ohio, my former preceptor, was much in the habit of prescribing it in pneumonia, especially the typhoid variety.

It appears to me to be much better adapted to the treatment of typhoid pneumonia than ipicacuanha, on account of the depressing effects of the latter remedy; it is especially indicated when the skin is hot and dry.

Sulphate of quinia, opium, or one of the salts of morphia, with the decoction of *asclepias tuberosa* were the remedies relied on in this form of pneumonia by Dr. Williams, as they are by myself: under this treatment copious diaphoresis is speedily brought about, and should be encouraged until the disease begins to decline; of course I do not speak of other adjuvants and appliances, as I am not writing on pneumonia; but I have been thus particular in describing its use in this disease, as it is the one in which I would especially recommend it.

Dr. LOCKWOOD advises to gather the root about the first of October, cut in transverse slices, dry in the shade, pulverize and bottle; as found in the shops it is reduced to a coarse powder, pressed into cakes and enveloped in paper, each book containing one pound.

Asclepias incarnate is the third and last species of *asclepias* that enjoys any reputation as a remedial agent.

The stem is tall, and branching above; leaves opposite, lanceolate, on short petioles, slightly tomentous; umbels numerous, erect, mostly terminal, often in opposite pairs; hoods ovate-oblong, with subfalcate ascending horns; found in wet places:

three to four feet high with two hairy lines; leaves from four to seven inches long, by one-half to one and a-half inches wide, rather abrupt at base, tapering to a very acute point on petioles one-half inch long; corolla, purple or flesh-colored; flowers in July and August.

The root is the medicinal part, and is esteemed by some to be analogous in remedial properties to *asclepias syriaca*. Dr. Griffith considers it a valuable cathartic and emetic; it has not, however, been sufficiently tested to determine its precise medicinal virtues.

Dr. TULLY, of New Haven, who has had an extensive experience with our indigenous remedies, says that it may be administered with advantage in catarrh, asthma, rheumatism, syphilis, and verminous affections.

The dose is from $\frac{1}{2}$ drachm to a drachm of the powdered root: a more eligible form for administration is that of a fluid extract, which may be found in the shops; and is largely consumed by the Eclectic doctors who use it, as I am informed, in a variety of cachectic and glandular diseases in which an alterative impression is desired.

I have had no experience with it myself; and I should not have called your attention to it, but for the fact that it belongs to the genus under consideration, and has had such valuable properties attributed to it by those who have used it.

It grows in abundance in the swampy portions of this State; and any one who may desire to test its virtues may certainly do so by the aid of the botanical analysis above given, and the specimens I present you.

The other species above-named may or may not possess valuable remedial properties; a fact which can only be known by actual and repeated experiment; and, judging from the indisposition of the medical profession to verify the experiments of others, however encouraging they may be, it is not likely that we shall know until, by accident or otherwise, they are forced upon our attention.

My friend, Dr. Miller, in his report called the attention of this society to an anonymous plant, the virtues of which I have

determined to test, upon a suitable opportunity presenting itself.

Believing that others were as favorably impressed as myself, will, I hope, be a sufficient apology for my giving the following botanical analysis:

I refer to *verbena bractiosa*.

Verbena or vervain (from the Celtic *perfoen*, to expel stone) belongs to the natural order *verbenaceae*: the species under consideration belongs to *pentandria monogynia*, of the artificial system: it is perennial; inhabits dry fields and roadsides of the Middle, Western, or Southern States.

It is decumbent, branched, very hairy, leaves laciniate rugous; spikes terminal, thick, many-flowered; bracts, lance-linear, longer than the flowers, thrice longer than the calyx; whole plant eight to ten inches long; leaves from one to two inches long; flowers small, blue, blooms from May to September.

Several species of *verbena* have enjoyed considerable popularity, both in this country and Europe.

Its popular name, vervain, shows that it was formerly held in high estimation for the expulsion of stone.

The *verbena verticæfolia* is esteemed by many as a powerful emmenagogue; the root being the part used in strong decoction.

My friend, Dr. Miller, used the *verbena bractiosa* with marked success in a case of *scrofula* with *amenorrhœa*. I understand him, however, to recommend it especially in *scrofulous* complaints.

Verbena hastata has also been used in *scrofula*: it is powerfully bitter, and may possess some tonic or alterative virtues which render it valuable in *scrofulous* diseases.

Grandview, Ill., Oct. 31st, 1866.

ARTICLE XXII.

MASTITIS AND ITS TREATMENT.

BY ROBERT S. ADDISON, M.D., 269 Milwaukee Avenue, Chicago.

As it has at this day become very *fashionable*—I believe that is the right word to apply—for mothers to wean their children early; if, indeed, they nurse them at their own breasts at all, our attention has been, lately, more frequently directed to the treatment of mastitis and mammary abscess than formerly.

Regarding mastitis, in most instances we are not called upon to render relief until the breast has become painfully distended, and we find our treatment (which is directed mainly to the prevention of abscess,) of no avail, in a great many cases.

Having, in my own practice, had this occur so often, after having made use of cathartics and alterants, and relying much upon the liniments and ointments, hitherto so much extolled, without obtaining the desired and anticipated results, I have adopted a different mode of treatment, and one which has given me more gratifying results than those previously employed.

I believe that the effects of liniments and ointments are counteracted by the friction employed in their application, and now never make use of them, but proceed as follows:

If called before resolution has commenced, I begin with a saline cathartic, and direct my patient to avoid the use of fluid, as much as possible, and vegetables entirely, and make use of a diet composed of bread and meat, taken as dry as is endurable.

In many instances, this general treatment alone is sufficient to relieve the mastitis.

If, however, the breast has become painfully distended before I see the case, I supplement the foregoing treatment, by having an ordinary glass breast tube heated by immersing it for awhile in hot water, then, tightly closing the small orifice and cooling the large one until it can be comfortably borne upon the breast apply it over the nipple; then cover the tube with a cloth

wrung out of cold water; and thus obtain easy and regular suction, which—repeated if necessary—entirely relieves the over-distended breast.

Where I find the patient in humble circumstances, I direct the use of a common beer-bottle instead of an ordinary breast tube; but it is not so well borne, owing to the smallness of the orifice and the irregularity of the surface which comes in contact with the tender areola.

March 14th, 1867.

Correspondence.

MOUNT VERNON, Ill., *March 26, 1867.*

Prof. N. S. DAVIS:—

Dear Sir,—The probable return of cholera to this country during the present year makes it necessary that physicians should devote some time and thought to devising a better mode of treatment than has been adopted heretofore. This better mode of treatment must be based upon changed or rather settled views of the pathology of cholera.

Without troubling you with a lengthy exposition of my views, let me tell you in a few words what they are. I have held them for a number of years, communicating them freely to my neighboring physicians, but have had few opportunities of putting them to the test. They are these: The fatality of cholera is due to the dessication of mucous lining of the bronchial tubes and pulmonary vessicles, whereby the proper oxygenation and decarbonization of the blood are prevented. That these conditions actually exist would not be controverted by any one, but the why has not yet been fully ascertained. Dr. Johnson comes more nearly to an explanation, when he attributes it to paralysis of the capillaries of the lungs. Does not the theory of *dessication* more fully account for it? Fluids do not readily permeate dried membranes—in cholera this condition actually exists—that is, the blood of a cholera patient, from

some cause, does not receive the full benefit of due and proper oxygenation. Now, if it were fully ascertained by *post mortem* examinations that the assumed condition of the pulmonary mucus linings does actually exist, would it not be admitted that the hindrance to the process of *osmosis* would be sufficient to account for the phenomena of cholera? Farther, although the investigations of pathologists have not positively shown this condition to exist, (perhaps from their attention not having been directed to it) do not some of the ascertained facts give considerable plausability to this theory? The upper air-passages are always dried, as evidenced by the dry hissing voice and by the actual condition of the nostril and mouth, as seen in life; and may we not assume that the same condition extends to the pulmonary vesicles. Is not this condition of the same parts still further proven, or at least rendered probable, by the fact that, while there is no mechanical hindrance to the free entrance of air into, and its diffusion over, the interior surface of the pulmonary linings, it comes from the lung almost unchanged by expiration, having lost but little oxygen and gained but little carbonic acid gas. See Davy & Bamel. What so readily accounts for this unchanged condition of inspired air, as that the pulmonary linings are dessicated (by the unknown cause of cholera) to such an extent that the function of *osmosis* cannot be fully and properly performed.

Now, theories are of but little avail if they do not point out a mode of treatment. But does not this theory point clearly to a rational mode of treatment? It seems to me that the inhalation of moist vapor, medicated as each practitioner might prefer, would be a necessary and rational mode of treatment. Would not, again, the exclusion of larger doses of opium from our prescriptions follow as a necessary consequence, for, if I am not mistaken, it is an ascertained fact that the pulmonary linings are found in a dried condition in cases of poisoning by that article.

Would not this theory suggest the free use of such remedies at possess the property of oxygenating the blood when introduced therein through the stomach? Concentric friction of the

extremities, as part of "Marshall Hall's Ready Method," would certainly suggest itself to the mind of every thinking physician as an important adjuvant. Would not, again, inhalation of vapor charged with iodine and other agents known to be destructive to vegetable life, immediately suggest itself to those gentlemen who have adopted the "Fungus Theory" of cholera?

These random thoughts I have hurriedly thrown together, and hope that you will give them some thought and consideration, and should you think proper, submit them to your Medical Society at its next meeting; and although they may be productive of no immediate good, they will certainly afford food for thought, and possibly be productive of ultimate good results.

I need offer you no apology for thus intruding these thoughts upon you without a personal acquaintance with you, for your known interest in, and devotion to, science is a sufficient warrant to me for so doing.

Respectfully, etc.,

W. DUFF GREEN, M.D.

HYDROPHOBIA.

SUGGESTION AS TO THE TREATMENT OF HYDROPHOBIA.

I would suggest one grand experiment for the cure of hydrophobia; that is, to trephine and subject the brain to pressure, and thus in a degree suspend the functions of the nervous system. Now when we relieve the excessive nervous irritability, there is reason to hope that nature will be able to eliminate the poison, or else its effects cease before the patient is exhausted. It may be said that this is a dangerous remedy, but a dangerous remedy may be required for a dangerous disease.

AMOS SAWYER.

HILLSBORO, ILL., *March 21st, 1867.*

Proceedings of Societies.

PULASKI COUNTY (IND.) MEDICAL SOCIETY.

Pursuant to a call of the physicians of Pulaski and adjoining counties, the following gentlemen assembled in Winamac, Ind., April 2d, 1867, for the purpose of organizing a Medical Society:—F. B. and A. McD. Thomas, A. M. Pearson, James Tolerton, H. Kittinger, Winamac; J. W. C. Eaton, and N. S. Hazen, Pulaski; C. G. Hartman, Francisville; James H. Smith, Harrison Township; I. B. Washburn and J. B. Moore, (student,) Star City; L. D. Glazebrook, San Pierre, Stark Co; and James Thomas, Royal Centre, Cass Co.

On motion, F. B. Thomas was chosen Chairman, and I. B. Washburn Secretary.

On motion of Dr. Jas. Thomas, a committee of five was appointed to draft a constitution and by-laws. The Chairman appointed Drs. Glazebrook, Hartman, Pearson, Tolerton, and A. Thomas. The committee reported a constitution and by-laws in the usual form, which were adopted.

After the adoption of the constitution, the Society proceeded to elect officers, which resulted as follows:—*President*, F. B. Thomas; *Secretary*, I. B. Washburn; *Treasurer*, A. M. Pearson; *Censors*, L. D. Glazebrook, James Tolerton, and A. McD. Thomas.

The Society adopted a fee bill, equalizing the charges for professional services, and harmonizing with those of neighboring societies.

Dr. Washburn offered the following resolutions, which were unanimously adopted:—

Whereas, From the teaching and practice of a certain class of *self-styled* physicians, the unnatural crime of procuring abortion or miscarriage, for the purpose of gratifying the lust, ambition, or caprice of those who do not wish to bear maternal responsibilities; therefore,

Resolved, First, That members of this Society will in no case countenance the practice, except to save life, and then only

after consultation with a physician of good standing, when such consultation is possible.

Resolved, Secondly, That members of this Society who may be cognizant of the procuring of criminal abortion, apprise the Grand Juries of their respective districts of the facts in the case, looking to a speedy prosecution of the same.

On motion, Dr. L. D. Glazebrook was appointed on essay, and of the proceedings of the Society for publication in the CHICAGO MEDICAL EXAMINER, *Chicago Medical Journal*, and *Cincinnati Lancet & Observer*.

On motion, adjourned, to meet in Winamac, the second Tuesday in June, 1867.

F. B. THOMAS, *Pres't.*

I. B. WASHBURN, *Sec'y.*

FOX RIVER VALLEY MEDICAL ASSOCIATION.

The Association met at Turner Junction, DuPage Co., Ill., on the 1st of April, and was called to order by the President, Dr. Winchester.

After the ordinary preliminary business, Drs. Hard, LeBaron, Winchester, and D. W. Young were elected delegates to the State Medical Association; and Drs. Hawley, Hard, Dean, and Hagar were elected delegates to the American Medical Association, with power each to fill vacancies from the members of this Association.

Dr. Hard delivered an address upon the influence of evil habits in the production of disease, with special reference to the use of tobacco. The address elicited a lively discussion, which was participated in by all the members present.

Drs. Hawley, Winchester, and Cushing, each reported an interesting case of injury of the head, one of which proved fatal, one recovered, and one still under treatment.

Dr. Hard reported a case of melanotic tumor, which had been twice removed within three months.

A discussion then followed upon obstetric practice, by Drs. Hawley, LeBaron, and Woodworth.

The Secretary, Dr. Cushing, being about to remove to California, tendered his resignation, and Dr. Hard was elected to

fill the vacancy. The Association passed, unanimously, resolutions of respect for the retiring Secretary.

On motion of Dr. Eddy, the Association adjourned to meet at Turner Junction, on the first Monday of July next.

C. CUSHING, M.D., *Sec'y.*

Selections.

BLOODLETTING THEN AND NOW.

By C. H. SPILLMAN, M.D., of Harrodsburg, Kentucky.

Fully persuaded that a proper conception of the *modus operandi* of bloodletting as a therapeutic agent, is an important *desideratum* in our profession, I propose to throw together, in as small a compass as may be, the results of inductions drawn from observation and experience, with special reference to this subject, running through a period of 35 years.

Believing, as I sincerely do, that the prevailing doctrines on this subject are unphilosophical, and lead to disastrous practical results, I read, with much pleasure, Dr. Wilson's "Plea for the Lancet," in vol. XV., No. 24, of the "Reporter," as indicating a disposition on the part of the profession, to a more thorough examination of the subject, which, I doubt not, will lead to more rational views.

When I first came upon the arena in 1832, I was not long in becoming convinced that the lancet was used too indiscriminately, and sometimes to an injurious extent. I did not bleed as much as my neighbors, because I met with a number of cases that I could as easily and more safely control without than with it. In many others, however, it was a *sine qua non* to success.

How stands the matter now? Although diseases are the same, climate the same, morbid agencies the same; although organic structure is the same, vital susceptibilities the same, involving the same therapeutical relationships, pointing to the same indications of cure; yet such has been the revolution in the medical mind, that, at the present time, a large proportion of living practitioners rarely employ bloodletting as a remedial agent, and quite a number discard it altogether. Many of our late writers on therapeutics, if they justify its occasional em-

ployment, authorize it in such dubious phrase, with such admonitory qualifications and restrictions, as to clothe it in the garb of suspicion, and deter the junior members of the profession from its employment, even where indispensably called for.

I am not unaware of the fact, that the task before me is an ungracious one. It would have been more consonant to my feelings, could I have endorsed sentiments consecrated by so many justly distinguished advocates. To the popular doctrines on this subject, however, I find myself in a position of inexorable antagonism, by the logic of facts and figures which are impregnable. That more liberal enlightened views are demanded, and will ultimately obtain. I have an abiding conviction; and, whenever medical men shall have divested themselves of the leaven of empiricism, to which that distrust in regard to bloodletting as a remedial agent, which now sways the popular mind, may be legitimately traced, and come to view this subject in the light of rational physiological principles; we shall then have a fuller appreciation of that powerful remedy, which, as Dr. Wilson justly remarks, nature claims as her own, and shall have made an important step, toward the highest attainable perfectibility of our art.

From one opinion, however, advanced by Dr. W., in his excellent paper, I must take the liberty of dissenting. That this prejudice originated with the non-medical public, I think, is exceedingly questionable; and if the doctor will submit the matter to a thoughtful review, he will find the responsibility where least excusable, with those who ought to know better. My observation is, that the popular verdict stands opposed to medical inefficiency in that regard. Disguise it as you may, I apprehend it is accepted as a concession to the various shades of empiricism which flood our land, all of which have been weighed in the balances and found wanting.

There is no therapeutical agent, however valuable and indispensable to a successful exercise of our art, that may not be brought into disrepute by injudicious use; and a misapprehension which underlies the general prejudice which has obtained in regard to the lancet, relates to the principle on which it operates in the subversion of morbid action. Had it not been regarded as a physical agent, operating on mechanical principles, it would never have been confided to the hands of the ignorant, and we should have had fewer failures and miscarriages, which have contributed largely to this prejudice; for it is with this as it is with all other remedial agencies, the more powerful for good, the more prolific of evil, if misapplied.

Employed as a vital agent, regardless of quantity, pushed to a given effect, by a practiced hand, under the guidance of a cultivated intellect, it is not only perfectly safe, but unquestionably the most potent remedial agent known to our art; nor can it be dispensed with, without surrendering to a weak vascillating timidity, compromising the most sacred obligations that can attach to a medical man, and greatly circumscribing the usefulness and efficiency of the medical art.

The argument against the lancet, founded upon its supposed debilitating effects, is an abstraction, and not an induction from a careful observation of facts. On the contrary, every practitioner who has had an extensive experience in its employment, and witnessed its magical effect in the instantaneous subversion of the most violent forms of morbid action, appreciate it as a means of economising strength. In a sudden attack of either a congestive or inflammatory character, although the patient may have a feeling of great prostration, and is unable to put forth his strength, he is not weak. Take off the weight by which he is overborne for the time, and he is still strong.

"The giant," says an able writer, "that lies prostrate on the earth, mastered by superior power, has still a giant's strength, though he do not at that moment put it forth. Give him but the chance to throw off the load that keeps him down, and he will soon show you that he is not weak."

This is a very apt illustration of depressed vital action, misnamed debility, under the weight of disease. The intelligent physician will not be misled by the illusion. He will at once recognize this apparent debility, as the sympathetic influence of a dangerous lesion in some vital part. Although greatly diversified in the phenomena they present, according to the peculiarity of the tissues involved, and the manifold remote causes which give rise to them, I apprehend there are few maladies not characterized by inflammation or venous congestion, either of which, by sympathetic influences, may occasion great prostration. They may be sudden in their onset, or insidious and gradual in their approach. They may persist for some time in a simple state of functional disturbance, but oftentimes run rapidly into irremediable structural alteration. In the latter case, relief, if attainable, must be prompt and instantaneous. The practitioner, seeing the peril, and comprehending the situation, will find little room for temporizing. The most powerful means of equalizing the circulation and taking off the oppression, are called into requisition; and a philosophical view of the medium through which, and the manner in which, both morbid

and remedial agents operate upon the vital economy, will at once suggest bloodletting as the most appropriate, because the most prompt and decisive means of accomplishing the object.

Irreconcilable as this may seem with that hypothesis, founded upon the mechanical philosophy, which assumes bloodletting to be a debilitant; it is nevertheless in strict accordance with the known therapeutical effect of that agent corroborated by the observation and experience of every one who has employed it, under an intelligent recognition of the principle on which it operates, in the submersion of morbid action.

The whole gist of the opposition to bloodletting, is predicated in conformity with the hypothesis, that it is necessarily debilitating; and this arises from a misconception of its *modus operandi* as a remedial agent.

Although a low pulse speedily raised, a shrivelled surface filled out, cold extremities warmed up, equilibrium of circulation reinstated, lost strength restored, vital energy renovated, are phenomenas which have been a thousand times observed to follow immediately on the intelligent employment of the lancet; and in multiplied instances such phenomena could have been elicited by no other means; it is nevertheless abandoned, on the ground of its alleged incompatibility with the assumed hypothesis.

Admitting the loss of blood to be intrinsically debilitating in a normal state of the system, and allowing our inability to reconcile this fact with its powerfully restorative effect in many forms of disease, the truth of which cannot be successfully controverted, it is no more seemingly paradoxical than many well-known facts with which the history of medicine abounds; and affords a striking exemplification of the practical value of the principle inculcated in Hoffman's Aphorism—*Ars medica tota observationibus*.

Quinia, in its nature and properties, is no less marked, intrinsically, as an excitant, than is the lancet a debilitant; and I apprehend the objector will find about as much difficulty in accounting, on philosophical principles, for the powerfully sedative influence of the former in controlling fever, as he will in reconciling the restorative influence of the latter, in diseases of depression, with its assumed debilitating effects.

To assume an hypothesis on sufficient data, and then reject every principle not in harmony with it, is unphilosophical.

It is a humiliating fact, that in the present imperfect state of our knowledge, much of our reasoning, inconclusive, and unsatisfactory, rises no higher than mere speculation. However

gratifying the reflection that by a close observance and careful analysis of facts, much is known in regard to the therapeutical effects of many remedial agents, still there are doubtless a great variety of hidden, unobserved influencing circumstances, connected with pathology, and therapeutics, which, if known, would greatly modify our inductions.

From a carefully noted and patiently classified series of facts, running through a long period, during which, in disregard of the popular prejudice, I have employed the lancet, not only to subdue violent inflammation, but to take off the oppression, and restore the strength, in cases of the most profound congestion, I am prepared to bear testimony to its magic power as a therapeutic agent; and hesitate not to say, after a patient, persevering trial of all its reputed substitutes, that many such cases can be reached by no other means known to the profession.

The number of lives sacrificed to this prejudice against the lancet, compared with those who fall a victim to its use, I doubt not, is as a thousand to one.

Look at the fearful increase of chronic diseases since the lancet has been partially ignored, and the profession has become tender-footed on the subject of bloodletting. Or to furnish a still more striking illustration; go to those districts where empiricism in its various forms, having manufactured, now subsists upon this prejudice, and lay it to the line and plummet of rigid vital statistics, and you will find multitudes of invalids who ought to have been restored to soundness by a prompt energetic treatment, whose cure, in consequence of an inefficient, temporizing course, has been incomplete; vestiges of disease still remain; vital leison still lingers, ultimately to develope itself in some chronic form; and the tenure on life simply prolonged a brief period.

It is probable that tubercular disease in its diversified forms, is more destructive to human life than all other maladies combined. The best lights reflected from pathological anatomy, note it as a product of inflammation. A patient investigation of the etiological history of very many of these diseases, rarely fails to reach an inflammation as the point of inception. This fact is suggestive, and its inculcations should not be disregarded. It strikingly illustrates the folly of temporizing in all grave maladies; and affords the highest presumptive evidence against the expectant plan of treatment, which reposes upon the medical powers of nature, while disease, none the less destructive, from its insidious character, is stealthily settling down upon the vitals. The point is this, that tubercular disease in

its multiplied forms and various complications, is, in large measure, the sequel to an inflammatory attack, which might and ought to be relieved by depletory measures so decisive, as to render the cure complete; and its great prevalence and fatality may be attributable to the existing popular prejudice against the only efficient means of subduing it in its incipency.—*Medical and Surgical Reporter.*

EXTRACT FROM OBSERVATIONS UPON ANÆSTHESIA OF THE CORNEA AND RADIATING FIBRES OF THE IRIS OCCURRING WITHOUT INTRA-OCULAR TENSION.

By JOS. S. HILDRETH, M.D., Ophthalmic and Aural Surgeon to Cook County Hospital, Chicago, Ill.

By anæsthesia of the cornea I here refer to that diminution of its sensitiveness to touch which may exist without apparent organic disturbance of the part.

By anæsthesia of the radiating fibres of the iris, to a condition of this membrane which, without mechanical complication or apparent organic change, prevents the pupil from properly responding to the influence of atropia or light.

The degree of anæsthesia may be ascertained by gently touching the cornea obliquely with the point of a small, soft camel's hair pencil, previously wet and stripped quite dry; or the point of a small twisted roll of unsized paper slightly moistened.

This should not be repeated more than once or twice during a minute, lest a degree of toleration be established which would interfere with correct appreciation.

The iris is to be tested by using a given number of drops of atropia in solution of definite strength.* But its dilatability does not always correspond to the state of the cornea, being in some cases greater with the same degree of anæsthesia than in others; yet, the amount of atropia and time required for dilatation are valuable diagnostic guides. The influence of light should also be noted.

These pathological conditions may exist from a slight to a very marked degree, and doubtless are caused by a certain abnormal state of the ciliary apparatus, which may result from

* Four grains to the ounce.

intra-orbital, cranial, or spinal causes; and possibly, in some cases, be idiopathic. It can also be temporary, as it were, spasmodic, or become permanent.

The influence exerted by this affection upon other diseases, especially panniform and ulcerated keratitis, infiltration and sloughing of the cornea in purulent ophthalmia, panus, and some forms of atrophy of the globe, engages particular attention.

When slight, of recent origin, or spasmodic, it may, in some cases, be relieved by medical means only; but, if existing to a high degree, or of long standing, division of the ciliary ring becomes necessary.

The following clinical facts are taken from the records of the United States Eye and Ear Hospital. All were operated upon without ether or chloroform.

Furrow, æt. 29. April 13, 1865. Left eye. Cornea considerably anæsthetized, panniform, and centrally ulcerated; pupil only slightly influenced by atropia. No apparent change of iris, *no tension of globe*; acute pain in and about the orbit.

Division of ciliary ring.*

The corneal anæsthesia was at once relieved, and the pupil became dilated in thirty minutes, though no atropia had been used for more than twenty-four hours. Pain speedily abated.

June 19. From the date of the operation there had been no return of pain; the pupil readily responded to atropia, but was not fully susceptible to light. The reflex movements were more marked from than to this side. No corneal anæsthesia remained; its panniform condition had greatly improved, and ulceration healed. Periphery of retina apparently unimpaired.

General and local medical treatment previous to the operation had failed to afford relief.

Crippen, æt. 20. April 13, 1865. Right eye. Cornea panniform, ulcerated, and considerably anæsthetized. Pupil slightly influenced by atropia. No other affection of iris; *no tension of globe*; severe pain in and about the orbit.

Ciliary ring divided as in preceding case.

Corneal anæsthesia immediately disappeared, and the pupil dilated in ten minutes, though no atropia had been used for twenty-four hours. Pain in orbit at once relieved, and from surrounding parts in a few days.

June 19. The corneal anæsthesia had not returned; the

* The point of operating was in all of these cases between the external and inferior recti, unless repeated, when it was between the inferior and external.

pupil dilated easily, and responded to light. Ulceration had healed, and panniform condition was improving. No return of pain. Periphery of retina unaffected, and reflex movements of irides equal.

Medical treatment had failed to afford relief.

Lamont, æt. 49. April 26, 1865. Left eye. Pain of varying intensity, radiating to corresponding supra-orbital and coronal regions. Cornea anæsthetized, and iris only feebly influenced by atropia. *No tension of globe.*

General and local medical treatment, with frequent paracentesis of the anterior chamber, had failed to materially improve these conditions.

The ciliary muscle was divided obliquely backward from its corneal attachment, about four and a-half or five millimetres.

Corneal anæsthesia was at once largely diminished, and the pupil dilated in about twenty minutes. Pain in the orbit relieved within a few minutes, and in coronal and supra-orbital regions in forty-eight hours. No atropia had been used within twenty-four hours of the operation.

In the course of ten days, the pupil, having been allowed to contract again, was found beyond the influence of atropia. The corneal anæsthesia was increasing and pain returning.

May 13. The ciliary muscle was again divided from its anterior insertion obliquely backward about six and a-half or seven millimetres.

The immediate effect was, as before, to remove the corneal anæsthesia, and to allow the pupil to dilate in about twenty minutes, from the effects of atropia that had been used forty-eight hours previously, as none had been employed since that time.

October 16. The corneal anæsthesia had not returned, the pupil was perfectly free, and responded to the action of atropia and light. Its contraction by reflex action was not so perfect as that of the opposite side.

Ulceration of the cornea had healed.

Peripheric vision, with dilated pupil, was good.

The imperfect results following the first operation are attributed to imperfect division of the affected parts of the ciliary ring. But it is probable all of its effects would not have been lost, as they were, had the use of atropia properly been kept up.

Hughes, æt. 23. Right cornea anæsthetized, and the pupil slightly affected by atropia.

Medical treatment, with repeated and systematic paracen-

tesis of the anterior chamber, slightly influenced these conditions.

May 11. The pupil contracted; was not affected by atropia, and the cornea was still anæsthetized. No other apparent affection of the iris, and *no tenison of the globe*.

Division of the ciliary ring, with the immediate effect of removing the corneal anæsthesia, and causing the pupil speedily to dilate, though no atropia had been used for twenty-four hours.

June 19. The pupil has been dilatable since the operation, and anæsthesia of the cornea has not returned.

Peripheric vision of this eye apparently good, and reflex movements of irides are equal.

Pemberton, æt. 29. March 18. The cornea of the right eye anæsthetized, and the pupil feebly influenced by atropia; considerable pain in and about the orbit. No intra-ocular tenison.

The ciliary ring was divided, which immediately removed the anæsthesia of the cornea and caused the pupil to speedily dilate.

No atropia had been used for twenty-four hours.

June 17. The corneal anæsthesia has not returned; the pupil dilates readily and responds to light. Periphery of retina unaffected, and reflex movements of irides equal.

The above cases represent the pathological conditions under observation, and show the results of division of the ciliary ring upon them after general and local medical treatment, aided in a number of them by frequent and systematic paracentesis of the cornea, had failed.

In no instance did evacuation of the aqueous humor affect the anæsthetized condition of the cornea or allow the pupil to dilate, though atropia was at the time freely used.

The influence of these conditions upon some forms of keratic disease is also above made apparent.

In the following case partial atrophy of the globe and corneal anæsthesia were both relieved by division of the ciliary ring after iridectomy had failed.

Hamilton, æt. 20. Left eye. Large leucoma, with anterior synechia; remainder of cornea nebulous and anæsthetized. Slight atrophy of the globe. Iridectomy, September 15, 1865.

October 11. Anæsthesia of cornea remains, and atrophy of globe unchanged.

Division of the ciliary muscle caused the corneal anæsthesia to disappear within forty-eight hours.

November 6. Globe is firm, and cornea normally sensitive.

The form of corneal insensibility under observation is usually uncomplicated; but it may co-exist with intra-ocular tenison, as in the following instance:

Johnson, æt. 25. Left eye. Staphyloma of choroid; iris dark and disorganized; pupil contracted and bound by posterior synechia; cornea anæsthetized; intra-ocular tenison well-marked.

October 30. Iridectomy followed in fifteen minutes by division of the ciliary muscle.

After the removal of one-sixth of the iris from its pupillary to the ciliary margin, the cornea remained anæsthetized as before, but was immediately relieved by the second operation.

In two other cases the pupil quite undilatable, yielded upon administering ether to a high grade of relaxation.

Dilatation became quite full in one, was easily maintained by atropia, and permanent relief followed. Only partial in the other; on discontinuing the drug, the pupil contracted and refused to dilate as before.

Several times I have observed this condition of the iris to be carried by reflex action to the opposite side. So that, upon relieving the eye most affected, it gradually disappeared from the other.

In some instances a certain grade of anæsthesia has been modified by well dilating the pupil, which accounts for the favorable influence of this remedy in keratic affections.

Von Graefe remarked, in 1859, that if the pupil readily dilates by atropia, there would be less liability to suppuration after extraction of cataract, or words to that effect.

That condition producing the corneal anæsthesia, specially described in this paper, undoubtedly often has been instrumental in producing unfavorable results in this operation, and it should be removed before flap extraction.

The early diagnosis of that condition represented by corneal anæsthesia and iritic insusceptibility to atropia, is of the greatest importance in purulent ophthalmia, as it is frequently followed by infiltration and consequent sloughing of the cornea or ulceration from the epithelial surface without previous infiltration.

If the narrow and dense band of conjunctiva immediately surrounding the cornea remains intact, infiltration of the sub-epithelial structures will precede sloughing; but if this conjunctival band early become infiltrated or disorganized, sloughing from the surface soon follows, though the parts beneath may not be infiltrated.

I would operate in all such cases when anæsthesia of the cornea could not be relieved by atropia, and especially when the pupil had become undilatable, and then *maintain the effects of the operation by the use of atropia.*

As stated in a previous paper, this operation should not wholly be relied upon in such cases. Other means must also be used to control inflammatory action, the purulent discharge, and the chemosis. By its proper and timely use, the cornea can be saved when all other known means *combined* would inevitably fail.

The successful treatment of panus by synechotomy and purulent inoculation involves one of the causes of its original production—imperfect nutrition of the deep tissues of the cornea.

From results already recorded, and experiments in progress, it is evident pannus may yet be successfully treated without resort to purulent inoculation.

As this paper is intended only to report certain clinical facts, theoretical deductions, as far as practicable, have been omitted.—*Transactions of the Am. Ophthalmological Society.*

PHYSIOLOGICAL AND THERAPEUTICAL ACTION OF COD-LIVER OIL.

By A. BISSELL, M.D., of New York.

The discussion of the therapeutical applications of cod-liver oil, started by Dr. Joseph Adolphus, of Hastings, Mich., in his able communication in the *Reporter* of December 8th, 1866, has led me to offer the following remarks on the subject for your columns.

M. Bouchardat, Professor of Hygiene at the Academy of Medicine, Paris, says:

"The minute division of the iodine in cod-liver oil, the particular state in which it exists, must singularly facilitate its absorption by the tissues, and can in this way contribute more than the absolute proportion of this substance to the marked effects which this oil exerts on the animal economy.

"Also, iodine in the oil is not eliminated from the system, AS THE OTHER SOLUBLE PREPARATIONS OF IODINE: in this elementary combination its action is slower, more regular, and more persistent, as it is successively set at liberty in the economy, in proportion as cod-liver oil is gradually decomposed in the blood."—[*Manuel de Materie Medicale*, page 749.—1856.]

The action of cod-liver oil on the system is a double one; it is nourishing by its fatty elements, and curative by its medicinal bodies—iodine, bromine, and phosphorus, which it naturally contains; and to these three substances must be attributed its superiority over other fats or oils, either animal or vegetable, in the cure of diseases. These facts, discovered and proven by physiologists in their experiments on animals, and confirmed by the experience of physicians in their daily practice, have been corroborated during the last eight years, in a most illustrative manner, by the administration, to a large number of patients, of cod-liver oil five times richer in iodine, bromine, and phosphorus than any of the cod-liver oils known before.

Cod-liver oil, as well as other fatty substances, when taken in too large quantities, is apt to disturb the stomach and derange the functions of the intestinal canal. Only a small quantity can be digested and assimilated, the rest passing off unchanged, producing more or less frequent and abundant alvine evacuations, in which are contained the superfluous oils or fats. Observations prove that the gastric juice has no action whatever on fats or oils, the pancreatic juice being the only body, which, by its emulsive properties, causes the absorption of these substances into the economy; and, therefore, all the oil not emulsified by the pancreatic juice is evacuated by the intestines just as it was taken. The knowledge of this important fact is due to the recent observations of CLAUDE BERNARD, a well known authority in physiology. The oil once emulsified by the action of the pancreatic juice, is brought into the general current of the circulation as follows: it is first taken up by the chyliferous vessels on the surface of the small intestines, and passing through the mesenteric glands and the thoracic duct, it is discharged in the left subclavian vein, where it mingles with the venous blood returning to the right cavities of the heart. This blood, and the fresh nutritious elements, furnished by the two subclavian veins, are pressed into the lungs to be there oxidized and altered; while passing through the pulmonary circulation, the oily molecules are modified and almost all of them destroyed. The blood, then ready anew for nutrition, passes into the left ventricle, to be thence distributed through the arterial system, carrying along with it, some oily globules left undecomposed during their speedy passage through the lungs, said oily globules to be successively altered in the circulating blood.

The medicinal oil, evidently brought undecomposed into the lungs, and partly in the general current of the circulation, is

modified, losing not only its emulsive form, but also its oleaginous characteristics, so as to constitute a part of the arterial blood. Iodine, bromine, and phosphorus, are then set free during the process of nutrition of the tissues, each part of our system appropriating to itself the substance it needs.

The tissues, in contact with the nutritious blood, having a tendency to appropriate to themselves the elements most proper to maintain their healthy condition or to alter it, when unhealthy, is it not judicious to conclude that the lungs first and then the rest of the system, when affected with bronchitis, phthisis, scrofula, under any variety, or rickets, etc., etc., are highly benefited by the healing and restorative action of the oil and its medicinal constituents, minutely, naturally, and persistently brought into contact with the diseased parts?

That oils and fats are successively carried through the economy, and transformed, as above described, is amply demonstrated by the experiments of the most eminent modern physiologists, such as CLAUDE BERNARD, TIEDEMANN and GMELIN, LEURET and LASSAIGNE, SANDRAS, BOUCHARDAT, BLONDLOT, DELAFOND, GRUBY L. CORVISART, J. C. DALTON, jr., A. FLINT, R. DUNGLISON, etc.

We must not forget this important point, that oils or fats go into the blood undecomposed and unchanged, being merely infinitesimally divided by the pancreatic juice; but if an oil contains substances, in a close chemical combination, so that they cannot be easily separated, these substances will of course be carried into the blood with the oil itself. This is just the case with a cod-liver oil which contains a large proportion of IODINE, BROMINE, AND PHOSPHORUS. Iodine and bromine have so strong an affinity for oil, that they cannot be separated from it by chemical reagents, not even by strong sulphuric acid. They must, therefore, be carried with the blood and liberated when the oil is transformed, in the process of nutrition, into its elements, and becomes the chief agent by which the heat of the body is maintained. Knowing, then, that to the nutritive property of the oil is superadded the alterative, and stimulating power of a comparatively large quantity of iodine, bromine, and phosphorus, who can doubt the efficacy, as a medicine, of cod-liver oil, if made richer with these substances?

Phosphorus, a part of our brain and bones, is a powerful diffusible stimulant, exciting the nervous organs, heightening the muscular power and mental activity, and relieving the despondency of mind occasioned by many serious diseases.

Iodine and bromine are superior to all alteratives for improv-

ing and purifying the depraved nature of the blood. They are the best remedies we possess for checking and controlling the swelling and induration of the glandular system, the ulcerative process in scrofulous complaints, the diseases of the lungs, etc. Obviously, the main point, in such serious affections, is to check and control at once the ulcerative process, and to do so it is of the greatest importance to use PROMPT AND ACTIVE MEDICATION.

SUPERIORITY OF IODINIZED COD-LIVER OIL OVER SIMPLE
COD-LIVER OIL.

Until of late, natural and pure cod-liver oil has been the best remedy, and the one most generally used, with more or less success, in diseases of the lungs when of a tuberculous character. The period of the malady when the oil was first employed, and also the purity and strength of the remedy accounting for the success or failure.

Pure cod-liver oil is more likely to cure consumption, scrofula, rickets, swelling of the glands, etc., in the first stage of the disease; in the second and third stages it mitigates the severity of the symptoms and prolongs the life of the patient, but seldom saves it.

The reason for this difference of action is simply that the pure oil contains iodine, bromine, and phosphorus only in minute quantities, which although sufficient to cure a disease in the beginning, is not powerful enough when it assumes a graver type.

If we suppose for an instant the discovery of a new natural cod-liver oil, containing more iodine, bromine, and phosphorus than the oil in present use, there is not the least doubt but that every physician would prescribe it in preference, fully confident of its enhanced qualities. The natural consequence of this proposition explains satisfactorily why the medical profession should give the preference to iodinized cod-liver oil, which contains a larger proportion of iodine, bromine, and phosphorus than the oil in present use; these active elements, as before remarked, are in such a peculiar combination that their action is slow, regular, and persistent, being successively set at liberty in the economy in proportion as the oil is decomposed in the process of animal life.

Some physicians are so well convinced that the curative properties of the oil reside in these three substances, that to obtain a full effect they prescribe very large doses of the oil, sometimes giving two, three, and even four tablespoonfuls three or four times a day, the larger quantity amounting to no less

than half a pint daily. That their object is not attained is fully proven by physiologists, who have demonstrated that only the small quantity of oil emulsionized by the pancreatic juice is digested and carried into the blood, the rest being passed off nearly as taken.

In view of the above physiological and chemical facts, experiments were made in 1858, which, after many trials, succeeded in preparing a *compound idinized cod-liver oil*, which is simply the best Newfoundland cod-liver oil combined with four times as much of iodine, bromine, and phosphorus as that naturally contains.

Pure cod-liver oil varies considerably in composition, as may be seen by comparing the different analyses published in works of chemistry and *materia medica*. A quart contains 1 to 4 grains of iodine; $\frac{1}{2}$ to $\frac{3}{4}$ of a grain of bromine; $\frac{1}{4}$ to $\frac{1}{2}$ of a grain of phosphorus. In 1860, there was published in the *Repertoire de Pharmacie*, edited by Professor BOUCHARDAT, at Paris, the formula of a cod-liver oil, which contains per quart in addition to the above quantities

Iodine,-----	16 grains.
Bromine,-----	2 grains.
Phosphorus-----	2 grains.

The combination is made so that the odor, taste, and color of the natural oil are preserved.

This preparation being consequently five times more active than the richest commercial cod-liver oil, will tend to restore health by its curative action thus enhanced, in a much shorter time than the simple kind, and attain the desired effect where the other will fail.

The dose of this oil is *only* a tablespoonful for adults, and a dessert or a teaspoonful for children, according to age, three times daily. It may be administered at any hour, but it is preferable to select the time of meals, since we know that the pancreatic secretion manifests itself only during the stomachal digestion, to act immediately on the alimentary principles as soon as they pass from the stomach into the intestines. Though the quantity of iodine is very small in each dose, it acts nevertheless with a greater efficacy than a larger quantity of any of the iodides, for the reason stated by Professor BOUCHARDAT and others, that iodine in cod-liver oil is not eliminated from the system as the other soluble preparations of iodine, but is successively deposited in the economy as the oil is gradually decomposed in the blood.

When iron is required with the oil, the dragees or syrup of pyrophosphate of iron will be found the most agreeable and active adjuvant. It is best for children and delicate persons to take the syrup of iron after the oil."—[Medical and Surgical Reporter.

PASSAGE OF AN ANATOMY ACT IN PENNSYLVANIA.

Within the last week the Legislature of this State has passed the following important act, which, it is understood, will receive the approval of the Governor:

An Act for the Promotion of Medical Science, and to Prevent the Traffic in Human Bodies.

SECTION 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly met, and it is hereby enacted by the authority of the same, that, any public officer having charge or control over the same, within the limits of Philadelphia and Allegheny Counties, shall give permission to any Physician or Surgeon of the same county, upon his request made therefor, to take the bodies of such persons as are required to be buried at the public expense, to be by him used within the State for the advancement of Medical Science, preference being given to Medical Schools, public and private; and said bodies to be distributed to and among the same, equitably, the number assigned to each being proportioned to that of its students; provided, however, that if the deceased person, during his or her last sickness, of his or her own accord, shall request to be buried; or if any person claiming to be, and satisfying the proper authorities that he is of kindred to the deceased, shall ask to have the body for burial, it shall be surrendered for interment; or, if such deceased person was a stranger or traveller, who died suddenly, the body shall be buried, and shall not be handed over as aforesaid.

SECTION 2. Every Physician or Surgeon, before receiving any such dead body, shall give to the proper authorities surrendering the same to him, a sufficient bond that each body shall be used only for the promotion of Medical Science within this State, and whosoever shall use such body or bodies for any other purpose, or shall remove the same beyond the limits of this State; and whosoever shall sell or buy such body or bodies, or in any way traffic in the same, shall be deemed guilty of a

misdemeanor, and shall, on conviction, be imprisoned for a term not exceeding five years, at hard labor in a county jail.

Similar legislation has been three times, at least, urged upon our Legislature before, unsuccessfully. Misunderstanding, prejudice, and technical delays, have defeated it. This time, the College of Physicians, of Philadelphia, upon the motion of Dr. W. S. Forbes, gave its official sanction to the effort. A committee, consisting of Drs. Forbes, Agnew, and H. Harts-horne, visited Harrisburg on behalf of the College. Especially through the exertions of Senator Wilmer Worthington, M.D., the act was rescued from burial in Committee, and passed through the Senate. In the House, it was called up by Mr. Freeborn, and passed within a few days. Thus one of the obstacles to medical teaching in Philadelphia is removed, and we are, in this respect, on the same footing as New York. It is a not uninteresting fact, that the passage of a similar bill, the "Warburton Act," by the British Parliament, more than forty years ago, followed the agitation resulting from the discovery of the murders perpetrated by Burke and Hare to obtain subjects for sale, at lower prices than, from want of this bill, they have lately commanded here.

Book Notices.

Obstetrics; the Science and the Art. By Charles D. Meigs, M.D., lately Professor of Midwifery and Diseases of Women and Children, in Jefferson Medical College, of Philadelphia, etc., etc., etc. Fifth edition, revised, with one hundred and thirty illustrations. Philadelphia: HENRY C. LEA. 1867.

This is a new and carefully revised edition of Dr. Meigs' well-known work on Midwifery. It is published in excellent style, with substantial binding, and contains 760 pages. The author has long been one of the ablest teachers and writers in our profession. And it is only necessary to remind our readers, that the work before us is everywhere recognized as a standard authority. For sale by W. B. KEEN & Co., 148 Lake St.

Practical Dissections. By Richard M. Hodges, M.D., formerly

Demonstrator of Anatomy in the Medical Department of Harvard University. Second edition, thoroughly revised. Philadelphia: HENRY C. LEA, 1867. pp. 285.

This is a plain, concise, and convenient guide to the student in his dissections. It is not a substitute for a treatise on anatomy, but just what the student needs for use in the dissecting room. For sale by W. B. KEEN & Co., 148 Lake St.

Inhalations in the Treatment of Diseases of the Respiratory Passages, particularly as affected by the use of atomized fluids. By J. M. DaCosta, M.D., Physician to Pennsylvania Hospital; Fellow of College of Physicians and Surgeons, etc., etc. Philadelphia: J. B. LIPPINCOTT & Co. 1867.

This is a monograph of 86 pages, very neatly printed and bound. It contains five chapters on the following topics:

1st. The History of Inhalations and the Apparatus Employed.

2d. The Mode of Administering Inhalations.

3d. The Penetrability of Atomized Fluids into the Air-Passages.

4th. Doses of Medicine for Inhalations.

5th. Therapeutic Considerations.

It is a work of real value. For sale by S. C. GRIGGS & Co., 148 Lake St.

Injuries of the Spine; with an Analysis of nearly four hundred cases. By JOHN ASHHURST, Jr., A.M., M.D., Fellow of College of Physicians of Philadelphia, etc., etc., etc. Philadelphia: J. B. LIPPINCOTT & Co. 1867. pp. 127.

This is a well written and very valuable essay on a very important subject. We fully commend it to our readers as worthy of a careful perusal. For sale by S. C. GRIGGS & Co., 148 Lake St.

Code of Medical Ethics, adopted by the American Medical Association. New York: WM. WOOD & Co. 1867.

The publishers have furnished the profession with the *Code*

of *Ethics* in the form of a small duodecimo volume, neatly printed and bound. A copy of it should be purchased and carefully read by every practising physician and surgeon in the United States. For sale by WM. WOOD & Co., 61 Walker St., New York City.

The Indigestions; or Diseases of the Digestive Organs Functionally Treated. By THOMAS KING CHAMBERS, Honorary Physician to H. R. H. the Prince of Wales, Consulting Physician and Lecturer on the Practice of Medicine at St. Mary's Hospital, Consulting Physician to the Lock Hospital, Author of "Lectures Chiefly Clinical," etc. Philadelphia: HENRY C. LEA. 1867. Chicago: S. C. GRIGGS & Co. One volume, octavo, pp. 287.

This work has grown out of a volume by the same author, published in 1856,* in which it was essayed to give both the physiology and pathology of digestion, or rather, an anatomical view of this function in health and disease. The subject-matter of the present volume consists principally of two hundred and twenty-seven cases, classified according to the various forms and results of Indigestion, which they specially illustrate; forming, to use the author's figure, a sort of skeleton, articulated together by argument, and made muscularly active by practical observations.

The greater portion of this work is evidently written *currente calamo*, and reads very much as the verbatim report of a clinical lecture would—a lecture, however, by one of matured judgment, intimate knowledge of his subject, and abundant experience. While it thus loses somewhat in style, it certainly gains in a freshness of expression, and an individuality which make its perusal a positive relief, after wading through some of the more ambitious monographs, in which a polished syntax sets forth a scant array of thought and argument, and rhetorical flourishes do duty for facts and illustrations.

Laying down, in a few weighty sentences, (pp. 17, 18,) a broad ground work of accepted premises, embracing the physi-

* "Digestion and its Derangements." By Thos. K. Chambers.

ology of digestion, its vital importance, and its more or less intimate connection with every other function of the human body, Professor CHAMBERS announces the following propositions, which underlie all his teachings of medical theory:—

* * * * all disease is, for the physician, essentially a deficiency of life, an absence of some fraction of the individual organization of force.

* * * * the organic laws of health and disease are one, * * the essence of the latter is a deficiency of the vital action which characterizes the former, * * all successful medical treatment is a renewal of that vital action.

Through the subsequent half-dozen pages of this first section of the introductory chapter, he insists on the paramount importance of assiduous attention to the digestive viscera in every stage of disease; and discusses the peculiarities arising from the oneness of the digestive organs and the relatively greater importance of preserving their integrity, as compared with that of the dual organs, such as the lungs, kidneys, etc. Section II of this chapter is taken up with explanations of the terms and divisions used in his elucidation of the subject.

Chapter II treats of the indigestion of various food, starchy and saccharine, or vegetable—albumenoid—fatty—and watery—with a section of treatment based on the articles of food not digested, and one of treatment based on the general pathological condition. This chapter embraces some valuable hints on dietetics, in the course of which is given the following:—

Ladder of Meat-Diet for Invalids.

- | | |
|-------------------------|--------------------------|
| 1. Whey. | 6. Sweetbread. |
| 2. Milk and Lime-Water. | 7. Boiled Partridge. |
| 3. Plain Milk. | 8. Chicken. |
| 4. Beef Tea. | 9. Mutton Chop. |
| 5. Mutton Broth. | 10. Roast Leg of Mutton. |

This chapter is illustrated by details of forty-nine cases, which have all the *vraisemblance* of clinical studies, and the mode of making which, by the way, deserves transcription:—

I make it a rule, to which exceptions need be very few, to write all prescriptions and papers of advice in a copying-book, which makes a duplicate of them by means of transfer-paper;

and at the back of this transcript I write, usually with the patient before me, his symptoms and history at least as far as to explain my reasons for the advice, before I go on to the next page.

Habits of social life leading to indigestion form the subject of the next chapter, and include eating too little—too much—sedentary habits—tight lacing—sexual excesses—compression of the epigastrium by shoemakers—solitude—intellectual exertion—want of employment—abuse of purgatives—of alcohol—tobacco—tea—opium.

Abnormal Pains (chap. IV), Vomiting (chap. V), Flatulence (chap. VI), are equally full in illustration and treatment; while the chapter on Diarrhœa is a model of analytical brevity. The following chapter treats of Constipation and Costiveness, and chapter IX of the varied and often obscure diseases of the nervous system arising from indigestion.

One or two samples of the style in which our author gives his views and we must conclude:—

* The chief office of the mucous membrane is *not* to secrete mucus. It is most active when it is not doing so, and its activity is decreased just in proportion to the copiousness of the mucus. Typical health certainly consists in its absence; robust people pass weeks without expectorating; many find their handkerchiefs clean and unfolded after several days in their pockets, spite of all the voluntary and involuntary irritants to which the Schneiderian membrane is subject; and the urinary and intestinal outlets ordinarily contribute only an infinitesimal quantity, which may be attributed to a temporary defect in some fraction of their large area.

The real office of mucous membrane is to offer a passage inwards for oxygen, water, fat, albumen, and other useful substances, and to defend the less easily renewed tissues beneath it from the deleterious action of external agents. These functions it best fulfils when it is bedewed with a moderate exhalation, and not with mucus. Chap. II.—Indigestion of Starch and Sugar.

* * * * *

It is truly by aid of the digestive visera above, that consumption can be curable. Medicines addressed to other parts may be indirectly useful sometimes, but they more commonly

impede the recovery; whereas aid, judiciously given in this quarter is always beneficial and often successful.

The chest is the battle-field of past conflict; the lymphatic duct the drill-ground for new levies of life.

* * * * *

As easily assimilated oil comes, in fact, into the short list of directly life-giving articles in the pharmacopœia; for it is itself the material by which life is manifested. Hence, under its use, beneficial influences are exerted throughout the whole body; old wounds and sores heal up; the harsh, wrinkled skin regains the beauty of youth; debilitating discharges cease, at the same time that the normal secretions are more copious; that the mucous membranes become clear and moist, and are no longer loaded with sticky epithelium; the pulse, too, becomes firmer and slower—that is to say, more powerful, for abnormal quickness here is always a proof of deficient vitality. Such are the effects, perfectly consistent with physiology, of supplying a sufficiency of molecular base for interstitial growth.

To find the easiest assimilated oil, and to prepare the digestion for the absorption of oil, are the main problems in the cure of consumption. (Chap. II—Indigestion of Fat, pp. 58-9.)

Clinical Reports.

FROM THE LECTURES OF PROF. DAVIS IN THE MEDICAL, AND PROF. ANDREWS IN THE SURGI- CAL WARDS OF THE MERCY HOSPITAL.

[Reported for the Examiner.]

[The Lectures from which these "Notes" are made, being delivered before the Summer Class of the Chicago Medical College, necessarily contain much matter of a purely elementary character. No attempt is, therefore, made to report them in full, as such information, for the majority of the readers of the EXAMINER, would be, it is presumed, supererogatory.

The "Notes" are intended simply to comprise outlines of such cases as may possess sufficient importance, together with a rationale of the treatment or summary of operation, and such didactic hints as may seem valuable—aiming to be a practical

elucidation of the treatment, medical and surgical, rather than a syllabus of the Lectures.—R.]

SERVICE PROF. N. S. DAVIS, M.D., VISITING PHYSICIAN.

Therapeutic Value of Tinct. Chloride of Iron and of the Sulphites in Treatment of Erysipelas.—Ætat. 41; American; occupation, carpenter; admitted for treatment, March 27th, laboring under a well-marked attack of *facial erysipelas*, the inflammatory stage having probably existed about forty-eight hours, although he had been complaining previously, and had taken some purgative medicine before his admission into the hospital. The febrile symptoms not being very urgent, and there being no evidence of cerebral congestion, he was ordered twenty-five drops of the tinct. chloride of iron (*tincture ferri chloridi*, Ph. U. S.), well diluted with sugar and water, every two hours during the ensuing twenty-four; after which, the interval was to be lengthened to three hours during the second day, and to four hours on the third day, when it was confidently anticipated the septic character of the disease would be entirely destroyed, and convalescence established.

The sulphites of soda and lime would undoubtedly produce the same results as antiseptics—in fact, their efficiency in the treatment of erysipelas, as well as in all other of the large and important class of catalytic diseases, seems to depend almost exclusively, on their power to *neutralize* the blood-poison. The tinct. chloride of iron possesses this power to a great extent; but in addition to this, it is one of the most reliable tonics, and where not contra-indicated by a high degree of febrile excitement, by cerebral congestion, by such constitutional disturbance as is manifested by a strong, full, and frequent pulse, excessive heat of surface, and severe pain, we will find its use followed by a prompter convalescence, and fewer unpleasant sequelæ, than by the use of alkaline sulphites.

These latter would seem, from our clinical observations and experiments thus far, to be more especially useful in retarding or arresting septic or necremic changes in the blood; and where the indications point simply to such ends, the sulphites are val-

uable agents. In the epidemic of erysipelas in this city, during the fall of 1863, in which many cases of an uncomplicated sthenic character occurred, they were found highly useful, and by their free exhibition, at an early stage of the disease, did much to cut short the period of its duration.

Cardiac Disease—Post Mortem Appearance in.—The death of the subject of the clinique, reported in the February number of the *Examiner*, (page 107), gave an opportunity for an examination of the pathological condition, which was duly presented to the class. Previous to his death, however, the attention of the class had been again called to him, and the hour pretty fully occupied in the physical exploration of his chest; so that on the examination of the lesion, after death, the students were enabled to appreciate the value of the pathognomonic symptoms they had become familiar with through life.

Post Mortem:—There was general serous infiltration of the areolar tissues, throughout the body; a moderate accumulation of serum in the peritoneal and pleuritic cavities; and a completely oedematous condition of the left lung. The heart presented a rare and interesting combination of pathological changes. The mitral valve was thickened and indurated, and the opening through it moderately contracted. The tricuspid and semi-lunar valves were all natural in structure. The walls of the left ventricle were natural in thickness, but its cavity is moderately elongated and pouched at the apex. The walls of the right ventricle were greatly hypertrophied, being in some places more than three-quarters of an inch in thickness. The columnæ carnae were correspondingly increased in size, but the cavity of the ventricle was not materially altered in size or shape. The trunk and cardiac orifice of the pulmonary artery were so much dilated that the valves in the latter were insufficient to close it. The full explanation of these pathological changes in the heart, and their relation to the general symptoms, and physical signs presented before the death of the patient, was made very interesting and instructive to the clinical class.

Early Diagnosis of Phthisis.—P. McC., æt. 51, Irish; has

been an inmate of the hospital some two or three weeks, suffering from general debility, and unusually enfeebled cardiac action. His general appearance, at the time of his admission, suggested a suspicion of crude tuberculosis as being at the origin of his troubles,—causing his debilitated condition, by impeding the functions of the lungs, diminishing the gross amount of assimilation, and causing an imperfect oxygenation of the blood, by which the vital properties of all the tissues were affected. Careful and repeated examinations, however, failed to detect any evidence of disease in the lung. Within the past few days a peculiarly fœtid odor, such as is occasionally observed accompanying the existence of an old glandular abscess, has been detected; and auscultation and percussion now exhibit such departure from the normal standards, as to warrant presenting him before the class, as an example of incipient tubercular phthisis. In the infra clavicular region of the right side, there is to be found a prolongation of the respiratory murmur, —not rough or loud, or in any other wise changed, but simply a prolonged expiratory sound. There is also a slight dulness on percussion in this region, though very slight and requiring close attention to detect the change. When the patient speaks, there is also a diffused vibratory jar perceptible. Thus there exist evidences, both of impaired capacity for air, and of increased density of structure in the upper part of that lung. In the cardiac region auscultation reveals feebleness of the heart's action, but without any abnormal sounds.

The primary cause of his trouble undoubtedly depends on a deficient innervation, causing a general feebleness of functional life; and the defective assimilation thus produced, is usually well adapted to the development of tubercular material, especially at his age.

The general indications of treatment in these early stages of the deposit and development of tubercular matter, are first to train the patient to regular muscular exercise, daily increased, and, as much as possible, out-doors in the open air; next, generous diet—let him eat all the food he can assimilate. If there be evidence of imperfect oxygenation of the blood, give six or

eight grains of the chlorate of potassa in some mucilaginous fluid, after each meal. I am fully satisfied that this salt promotes oxygenation, and, consequently, assimilation. The presence of chlorine salts in the blood increases the capacity of that fluid for the absorption of oxygen from the air in the lungs. If in addition to this it be deemed advisable to produce an impression on the nervous system itself, the hyoscyamus and scutellaria will be found useful in allaying that nervous irritability which is almost universally manifested in a depressed condition of the system; while iron and nux vomica, or strychnia strongly increase nerve force and tone. The formula in general use in this hospital for such indications, is this:—

R	Ext. Hyoscyamus,-----	30	grs.
	Ext. Scutellaria,-----	30	grs.
	Ferri Sulphas,-----	30	grs.
	Aloes Pulv.,-----	10	grs.
	Ext. Nux Vom.,-----	10	grs.

Mix, divide into 30 pills; take 1 before each meal.

For the nux vomica, strychnia may be substituted in the proportion of one-thirtieth of a grain to each pill; but the extract of nux vomica is preferable, if it can be procured of a reliable character, on account of its more persistent and uniform tonic action, while the alcaloid acts more directly as a stimulant to the spinal cord and medulla oblongata. Or the hydrastis canadensis, in the form of extract, and dose of one or two grains, may be substituted for the nux vomica, or be used in combination. In a proportion of these patients, and where tubercular deposit actually exists, substitute the cod liver oil for the pill, giving from a dessert to a table-spoonful three times a day. The oil may be emulsified by the addition of a half drachm or a drachm of the liquor potassæ to the ounce of oil, and in this way may be taken by patients of squeamish stomachs, or in cases of pyrosis or heartburn—producing an antacid effect, and should be taken from thirty to forty-five minutes after eating.

SERVICE—PROF. E. ANDREWS, M.D., SURGEON-IN-CHARGE.

Radical Cure of Hydrocele.—The occasional failure of the irritating injection to set up a sufficient amount of adhesive inflammation to effect a cure in this disease, and the objection to making more incisions than are absolutely necessary, rendering the seton obnoxious, has led Dr. Andrews to devise a modification, embracing the advantages of both plans without the inconveniences from the failure of the one, or the double incision of the other.

A. E. W. ætat. 23; admitted to hospital April 15th; hydrocele of the left side, caused by a kick in the scrotum by his sleeping bedfellow, about six months previously. The tumor had attained only a moderate size, but, owing to the existence of a varicocele condition of the left spermatic cord, it was deemed desirable to get rid of the increased weight of the distended scrotum. The operation, as performed, consisted of the introduction of the canula in the ordinary manner, and the injection of about half an ounce of tincture of iodine, care being taken that the canula was within the sac itself, and not opening into the cellular tissue—(a neglect of which point had caused the sloughing away of the entire scrotum in a case which had fallen under the operator's notice, in which the timid surgeon had injected his irritating fluid into the tissue, instead of into the sac.) After the injection, a piece of tape was pushed up through the canula, by means of a probe, into the sac, and an inch or two of it left within in an irregular, crumpled-up ball; the canula was now withdrawn over the dependent end of the tape, leaving this last hanging out of the orifice. After from thirty-six to forty-eight hours, a sufficient amount of inflammation is excited, and the third or fourth day the tape may be withdrawn, freely bathed in pus.

By this means the amount of irritation can be pretty accurately graduated; and while it relieves the operation of the uncertainty of the simple injection, all the efficiency of the seton is obtained in a much neater and more workmanlike manner.

Ununited Fracture of Humerus.—Thomas McCarty; ætat.

23; Irish; fell off a load of lumber Sept. 25th, 1866, fracturing the right humerus, about the junction of the middle and upper thirds. Admitted to hospital March 14th, 1867; entire want of union between the two fragments; no apparent exciting cause. Was operated on by perforation soon after his admission, and strict attention given to his general health; no degree of inflammation, however, was induced, nor has there been yet, although the operation has been thrice repeated, making four operations in all in the space of thirty days, each operation increasing in severity in the extent and thoroughness with which the tissues have been broken up. Fifth week, from admission, operated again by introducing, through a small incision, a common inch and a half wood-screw through the fragments in such a way as to secure perfect apposition and immobility, except a slight lateral motion allowed by the play of the screw.

It is to be observed, that hitherto the operations have entirely failed in producing inflammation, and we may now look for some, though it is to be confessed, not a complete union as the result of this procedure.

April 22d, a sufficient degree of inflammatory action having been obtained, the screw was to-day withdrawn, and the arm dressed in the usual way.

Andrews' New Plastic Operation.—S. ætat. 21; in June, 1866, while carrying a coal-oil lamp broke the same, and, falling into the flames, was severely burned about the face; was admitted to hospital April 7th, 1867, with the loss of one eyebrow, ectropion of all the eyelids, quite extensive and much the worst of the left eye, and loss of both alæ of the nose. April 10th, operated on the left eye by the curved method with revolving flaps, as described in the EXAMINER for 1866, page 465. It is proposed to attempt the restoration of the alæ of the nose by the same method, and as the patient presents an unusually extensive field for the demonstration of the plastic operation, an effort will be made to furnish the readers of the EXAMINER with a full report of the various operations and their results.

Editorial.

CHICAGO MEDICAL SOCIETY—ANNUAL MEETING.—The regular annual meeting of the Chicago Medical Society was held in the Court House, on the evening of the 5th of April, 1867. The meeting was well attended, and the election of officers for the ensuing year, resulted as follows: President, Dr. J. P. ROSS; Vice-President, Dr. JOHN REID; Secretary, Dr. H. M. LYMAN.

Sanitary Committee.—Drs. N. S. Davis, R. G. Bogue, and R. M. Lackey.

Censors.—Drs. E. L. Holmes, Thos. Bevan, John Reid.

Committee on Ethics.—Drs. S. Wickersham, G. Paoli, T. D. Fitch.

Delegates to the American Medical Association.—Drs. Macalister, Paoli, Wickersham, Reid, Blake, Bogue, Lackey, Fitch, and Fisher.

Delegates to the Illinois State Medical Society.—Drs. Davis, Trimble, Fisher, Macalister, Bogue, Holmes, Lackey, Fitch, Hatch, Hildreth, Nelson, Loverin, Tucker, Reid, Blake, Quales, Fenn.

A vote of thanks was unanimously tendered to the retiring officers for the faithful and prompt manner in which they had discharged their respective duties during the past year. After the transaction of some miscellaneous business, the society adjourned.

CHICAGO MEDICAL COLLEGE APPOINTMENTS.—During the past winter, Prof. F. MAHLA, who had ably filled the two Chairs of Chemistry from the first organization of the College, tendered his resignation, in consequence of the pressure of other business. The places thus made vacant have been filled by the appointment of ——— DAVIES, Prof. of Chemistry and Physics in the Lawrence University, at Appleton, Wisconsin. Dr. DAVIES is an enthusiastic cultivator of the natural sciences, and will bring to his new position a high reputation, founded on several years' experience as a practical teacher. DANIEL NELSON, M.D.,

who has given the course of instruction on Physiology and Histology, during the past lecture term, in a manner highly satisfactory to the Faculty and Students, has now been appointed to the full Professorship in that department. Prof. H. A. JOHNSON, who felt compelled last year to resign the Chair of General Pathology and Public Hygiene, on account of ill-health, has again accepted a Professorship, to which has been assigned the full consideration of Diseases of the Chest. There is an excellent class of students in attendance on the Spring and Summer Course of Instruction, now in progress, and the College is steadily advancing in its career of usefulness and prosperity.

ILLINOIS STATE MEDICAL SOCIETY.—The next Annual Meeting of the Illinois State Medical Society, will be held in the Hall of the House of Representatives, at Springfield, commencing on the first Tuesday in *June*, at 10 o'clock, A. M.

We are authorized, by the Committee of Arrangements, to state, that the Chicago, Alton, and St. Louis, and the Toledo, Wabash, and Great Western Railroads, will pass Members of the Society to and from the Meeting, over these roads, for one fare and one-fifth. It is also expected that the Illinois Central will do the same.

N. S. DAVIS,

Per. Sec. Ill. State Med. Society.

Chicago, April 15, 1867.

We take pleasure in calling the attention of our readers to the following notices:—

TO PHYSICIANS.—At the request of several members of the profession, Dr. Horatio R. Storer will deliver a private course of twelve lectures, upon the Treatment of the Surgical Diseases of Women, during the first fortnight of June, at his rooms in Boston. Gentlemen attending the course, will be required to show their diplomas. Fee \$50.

Hotel Pelham, Boston, March 29, 1867.

CHARITABLE EYE AND EAR CLINIC, No. 305 STATE, COR. VAN BUREN ST.—Trustees:

Hon. Lyman Trumbull, President.

C. T. Bowen, Esq., Secretary and Treasurer.

W. E. Doggett, Esq.

C. H. Holden, Esq.

Jos. G. Hildreth, M.D. Attending Surgeon.

This institution is open daily, at 12 o'clock, for the treatment of the poor of the Northwest.

Clinical instruction will be given during the lecture season.

INDIANA STATE MEDICAL SOCIETY.—The next regular meeting of the Indiana State Medical Society will be held at Indianapolis, Ind., on Tuesday, May 21st, 1867. We hope all our readers in that State will remember the day, and see that their respective localities are well represented.

CHICAGO MEDICAL JOURNAL.—This periodical has again changed hands. Drs. HOLMES, LYMAN, and LACKEY have vacated the editorial chair, and given place to Dr. J. ADAMS ALLEN, Professor of Principles and Practice of Medicine in Rush Medical College. The retiring editors were men of talent, industry, and integrity, and their sudden displacement will be regretted by many. Their successor is well known to the readers of that journal, he having occupied the same position in connection with the late Prof. BRAINARD, three or four years since.

MONEY RECEIPTS FROM FEB. 21ST TO MAR. 22D.—Drs. R. D. Cogswell, Nauvoo, Ill., \$3, E. Robbins, Pontoosuc, Ill., 3, P. G. Kelsey, Fort Wayne, Ind., 5, W. L. Krieder, Prairie City, Ill., 3, Wm. Hoyne, Monmouth, Ill., 3, A. C. Corr, Carlinville, Ill., 3.00, G. Bradley, Waverly, Ill., 3, D. La Count, Chilton, Wis., 8, G. A. Bradwell, Prophetstown, Ill., 3, H. C. Lester, Newcomer, Ind., 3, S. D. Mercer, Omaha, Neb., 3, M. A. McClellan, Canton, Ill., 3, St. Joseph Medical Society, St. Joseph, Mo., 3, John Griffin, Newton, Ill., 3, M. S. Wilson, Griggsville, Ill., 3, J. H. Hollister, Chicago, Ill., 5, Herbert Harris, Wheeler, Ind., 3, E. V. Doles, Chicago, Ill., 3.

MORTALITY REPORT FOR THE MONTH OF FEBRUARY:—

CAUSES OF DEATH.

Accidents,-----	2	Fever, Scarlet,-----	10
Abscess,-----	1	Fever, Typhoid,-----	5
Bronchitis,-----	1	Fever, Childbed,-----	2
Cancer,-----	2	Fever, Typhus,-----	1
Colds,-----	6	Hydrocephalus,-----	10
Croup,-----	8	Inflammation of Bowels,-----	7
Consumption,-----	40	Inflammation of Brain,-----	3
Convulsions,-----	43	Inflammation of Lungs,-----	11
Childbed,-----	4	Inflammation of Throat,-----	1
Congestion of Brain,-----	1	Inflammation, not stated,-----	2
Congestion of Lungs,-----	7	Killed,-----	1
Delirium Tremens,-----	1	Marasmus,-----	1
Drowned,-----	1	Measles,-----	1
Decline,-----	1	Old Age,-----	9
Diphtheria,-----	5	Poisoning,-----	1
Dropsy,-----	7	Paralysis,-----	3
Disease of Brain,-----	1	Pneumonia,-----	2
Disease of Bowels,-----	1	Rheumatism,-----	1
Disease of Heart,-----	4	Suicide,-----	1
Disease of Liver,-----	2	Stillborn,-----	8
Disease of Lungs,-----	5	Spasms,-----	4
Disease of Hip,-----	1	Small Pox,-----	3
Erysipelas,-----	1	Teething,-----	12
Fever, Congestive,-----	6	Whooping-Cough,-----	10
Fever, Remittent,-----	3	Ulcer,-----	1
Fever, Spotted,-----	1	Unknown,-----	15
Total,-----			280
Total number last year for the month of March,-----			254
Increase,-----			26

DIVISIONS OF THE CITY.

North,-----	67	South,-----	90	West,-----	123	Total,-----	280
Total number during the month of March,-----							280
Total number during the month of February,-----							255
Increase,-----							25

AGES OF THE DECEASED.—Under 5 years, 143; over 5 and under 10 years, 16; over 10 and under 20, 16; over 20 and under 30, 29; over 30 and under 40, 27; over 40 and under 50, 17; over 50 and under 60, 7; over 60 and under 70, 9; over 70 and under 80, 10; over 80 and under 90, 2; over 100, 2; unknown, 2. Total, 280.

NATIVITIES.

Chicago,-----	151	France,-----	1	Sweden,-----	2
Other States,-----	48	Germany,-----	38	Scotland,-----	3
Bohemian,-----	1	Holland,-----	1	Unknown,-----	1
Canada,-----	4	Ireland,-----	25		
England,-----	2	Norway,-----	3	Total,-----	280

The attention of the members of the Massachusetts Medical Society is respectfully called to the following communications from the *Boston Medical and Surgical Journal*:—

Treatment of Acute Rheumatism. Messrs. Editors,—Having for a year past used what I consider a new remedy for rheumatism, and with better success than from any other remedy, I consider it proper to ask the profession to make a trial of it. It is the syrup of lime, made according to Trousseau's prescription, as found in Parrish's Pharmacy. I have used it, according to the severity of the case and the age of the patient, in the dose of ten (10) drops to forty-five (45) drops, and repeated in from two (2) to six (6) hours, as symptoms have seemed to demand. In but one (1) case has any opiate been required from the beginning. Two (2) cases were complicated with Bright's disease, as indicated by the great abundance of albumen, and the casts, as seen in the urine. In one of these the albuminuria entirely dissappeared, and in the other it has been largely diminished.

There has been no constipation, but generally looseness of the bowels, after a couple of days' treatment.

The medicine is best taken in unskimmed milk, in quantity from a tablespoonful to four (4) ounces, according to the size of the dose of syrup.

Hoping that other members of the profession may meet with the success which I think I have had, I am very truly yours,

Boston, February 23, 1867.

CHAS. E. BUCKINGHAM.

For the information of our readers, we copy from Parrish's Pharmacy the prescription alluded to:—

"CALC SACCHARATUM, SYRUPUS CALCIS.—Trousseau used the following proportions for producing a solution of lime by the aid of sugar:—I part of slaked lime, 10 parts water, and 100 parts syrup are boiled together for a few minutes, strained and diluted with four times the weight of simple syrup.

"This syrup has an alkaline taste and reaction, and is the solution of a chemical compound of sugar and lime. It is used for the same purposes as lime water, but on account of its causticity it is necessary to dilute it considerably. It is given to children in the quantity of twenty or thirty grains during the day; adults take from two to three drachms during the same time."

City and Country Population of England.—According to the Registrar-General, in 1861 the population of England living in the cities and large towns amounted to 10,930,841; of those living in the country and in small towns, 9,134,386.

MEDICAL THERMOMETERS.

The undersigned offer to the Profession the following finely finished, very accurate Medical Thermometers,

Graduated on Ivory,

To $\frac{1}{2}$ Degrees and $\frac{1}{4}$ Degrees:

1. Thermometer, 5 to 6 inches long, straight, $\frac{1}{2}$ degrees. in neat Morocco Case,	\$3 50
2. Do. Do., bent,	4 00
3. No. 1 and No. 2, in one case,	7 00
4. Thermometer, 9 to 10 inches long, straight, $\frac{1}{4}$ degrees, in neat Morocco Case,	6 00
5. Do. Do., bent, and Self-Registering,	8 00

Also, Microscopes of All Sizes and Patterns.

FINE POCKET BATTERIES,

French Manufacture, dimension 8x4x2 in., etc., etc.

 Catalogue furnished on application.

JAMES FOSTER, Jr., & CO., Opticians,
46 Clark St., near Sherman House.

CHICAGO MEDICAL COLLEGE.

The regular Annual Lecture Term in this Institution will commence on the first Monday in October, and continue until the first Tuesday in March following. Clinical Lectures *daily* throughout the term.

FACULTY.

N. S. DAVIS, M.D., Professor of Principles and Practice of Medicine, and of Clinical Medicine.

W. H. BYFORD, M.D., Professor of Obstetrics and Diseases of Women and Children.

EDMUND ANDREWS, M.D., Professor of Principles and Practice of Surgery, and of Military Surgery.

F. MAHLA, Ph. D., Professor of Organic Chemistry and Toxicology.

H. A. JOHNSON, M.D., Emeritus Professor of Gen. Pathology and Public Hygiene.

J. S. JEWELL, M.D., Professor of Descriptive Anatomy.

J. H. HOLLISTER, M.D., Prof. of Gen. Pathology and Public Hygiene.

RALPH N. ISHAM, M.D., Professor of Surgical Anatomy and Operations of Surgery.

M. O. HEYDOCK, M.D., Professor of Materia Medica and Therapeutics.

F. MAHLA, Ph. D., Professor of Inorganic Chemistry.

R. J. PATTERSON, M.D., Professor of Medical Jurisprudence.

DANIEL NELSON, M.D., Lecturer on Physiology and Histology.

J. M. WOODWORTH, M.D., Demonstrator of Anatomy.

For the Winter Term, admitting to all the Lectures in the College,

Graduation Fee,

Matriculation Fee,

Dissecting Ticket,

Hospital Ticket,

The Summer Reading and Clinical Term commences on the second Tuesday in March, and continues until the first Tuesday in July; and is free to all matriculated Students of the College. Boarding, \$3.50 to \$4.50 per week. For further information, address

E. ANDREWS, Sec'y of the Faculty.